

Digital Printing Materials

ORAJET[®]
ORAGUARD[®]
ORACAL[®]
ORALITE[®]
ORABOND[®]
ORAFILM[®]
ORAMOUNT[®]



Engineered to Perform Better™



ORAFOL's Headquarters



Located just outside of Berlin in the heart of Europe, the ORAFOL Europe GmbH headquarters is the hub of the organisation's culture of leadership and excellence.



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Digital Printing Materials

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Films for solvent based inkjet printing

| Description | | | | | | |
|------------------------------|---|--|--|--|---|--|
| Product | Front Materials | Colours / surfaces Gloss (G) Matt (M) Semi-gloss (SG) | Adhesive | Covering Material | Areas of use * | |
| Long-term Application | ORAJET® 3951 | Premium cast PVC film 55 micron | White (G) | Solvent polyacrylate, repositionable, permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. complete car wrapping. |
| | | | Transparent (G) | Transparent | | |
| | ORAJET® 3951RA | Premium cast PVC film 55 micron | White (G) | Solvent polyacrylate, repositionable, permanent, grey | PE-coated double sided silicone paper 165 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. complete car wrapping. The "Rapid Air" technology enables easy and rapid application without air inclusion, especially of large-sized graphics or decals. |
| | ORAJET® 3951HT | Premium cast PVC film with very high tack 55 micron | White (G) | Solvent polyacrylate, permanent, with high initial tack and final adhesion, grey | PE-coated double sided silicone paper 148 g/m ² | For long-term graphic applications, markings and decorations with the highest degree of brilliancy and durability in extreme outdoor conditions and on "hard-to-stick" substrates. |
| | | | Transparent (G) | Transparent | | |
| | ORAJET® 3751 | Polymeric PVC film 60 micron | White (G) | Solvent polyacrylate, repositionable, permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. |
| | | | Transparent (G) | Transparent | | |
| | ORAJET® 3550 | Polymeric PVC film 70 micron | White (G), (M) | Solvent polyacrylate, repositionable, permanent, transparent | PE-coated double-sided silicone paper, 148 g/m ² | For long-term displays with highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. |
| | ORAJET® 3551 | Polymeric PVC film 70 micron | White (G), (M) | Solvent polyacrylate repositionable, permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. |
| | | | Transparent (G), (M) | Transparent | | |
| | ORAJET® 3551RA | Polymeric PVC film 70 micron | White (G), (M) | Solvent polyacrylate, repositionable, permanent, grey | PE-coated double sided silicone paper 165 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. The "Rapid Air" technology enables easy and rapid application without air inclusion, especially of large-sized graphics or decals. Suitable for even or slightly curved surfaces. |
| | ORAJET® 3551DT | Polymeric PVC film 70 micron | White (G), (M) | Solvent polyacrylate, permanent, transparent | PE-coated double sided silicone paper 148 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. Good processing properties at low temperatures. |
| | | | Transparent (G) | | | |
| | ORAJET® 3591 | Polymeric PVC film 70 micron | White (G), (M) | Solvent polyacrylate, removable, grey | PE-coated double sided silicone paper 148 g/m ² | For long-term displays with the highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. |
| | | | Transparent (G) | Transparent | | |
| | ORAJET® 3105 | Polymeric PVC film 100 micron | White (G), (M), (SG) | Solvent polyacrylate permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant, digital large-format prints and displays in long-term outdoor applications. |
| Transparent (G) | | | Transparent | | | |
| ORAJET® 3105HT | Polymeric PVC film 100 micron | White (G) | Solvent polyacrylate, permanent, with high initial tack and final adhesion, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant, long-term, digital large-format prints and displays in extreme outdoor conditions and on "hard-to-stick" substrates. | |
| ORAJET® 3109 | Polymeric PVC film 100 micron | White (G), (M), (SG) | Solvent polyacrylate, removable, grey | PE-coated double sided silicone paper 148 g/m ² | For digital large-format prints and displays in outdoor applications. | |
| | | Transparent (G) | Transparent | | | |
| ORAJET® 3850 | Translucent polymeric PVC film 80 micron | White (SG) | Solvent polyacrylate, permanent, transparent | PE-coated double sided silicone paper 148 g/m ² | For illuminated displays for long-term outdoor applications, e.g. application on light boxes. | |
| ORALITE® 5600 | Retroreflective cast PVC film 110 to 140 micron | Various colours | Solvent polyacrylate, permanent, removable by heat | PE-coated double sided silicone paper 145 g/m ² | Developed for high-quality vehicle livery, to produce lettering, markings and decorations. Suitable for use on cutting plotters; provides good adaptability also to corrugations and rivets. | |
| ORALITE® 5600E | Retroreflective cast PVC film 90 to 140 micron | Various colours | Solvent polyacrylate, permanent, removable by heat | PE-coated double sided silicone paper 145 g/m ² | Developed for high-quality vehicle livery, to produce lettering, markings and decorations, which may be applied within contour markings according to ECE 104. Suitable for use on cutting plotters; provides good adaptability also to corrugations and rivets. | |

For information about ICC profiles please see www.orafol.com
The films are printable with solvent-based, UV-curable and latex inkjet printers
STANDARD SPLICE-FREE

1 Measurement after 24 h
2 Adhered to aluminium
3 Special sizes available upon request

4 Adhered to steel
5 Adhered to acrylic glass
6 Only in white

7 For even surfaces only
8 Not in transparent matt
9 Only in white gloss

| Technical Data* | | | | | | Recommendations | | | | | | | | | | | | | |
|--|---------------------------------------|--|---|---|------------------|----------------------------|---|------------------|-------|------------------|------------------|------------------|-----|-------|-------|-----|-----|-----|-------|
| Adhesive 1 power (FINAT- TM 1) N/25 mm (average) | Minimum application temperature | Temperature 2 resistance no variation | Service life (unprinted) in years | Standard sizes 3 of rolls on 3" and 6" cores and Arizona | | ORAGUARD® Laminating Films | | | | | | | | | | | | | |
| | | | | Widths (mm) | | Lengths (m) | | 293 / 293F ** | 297GF | 290 / 290F ** | 215 / 215DU * | 210 / 210DU * | 200 | 220HG | 221HG | 372 | 240 | 236 | 255AS |
| 18 | +8°C | -50°C to +100°C | 10 | 760 914 6 | 50 | * | | * | | | | | | | | | | | |
| | | | 8 | 1050 6 1370 1520 | 100 | | | | | | | | | | | | | | |
| 18 | +8°C | -50°C to +100°C | 10 | 760 1050 1370 1520 | 50 100 | * | | * | | | | | | | | | | | |
| 28 | +4°C | -50°C to +100°C | 7 | 1370 1520 | 50 | * | | * | | | | | | | | | | | |
| | | | 5 | | | | | | | | | | | | | | | | |
| 18 | +8°C | -50°C to +90°C | 8 | 1370 | 50 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | +8°C | -50°C to +90°C | 7 | 1370 | 50 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | +8°C | -50°C to +90°C | 7 | 760 914 6 1050 6 1370 1520 1600 6 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | +8°C | -50°C to +90°C | 7 | 760 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | -5°C | -50°C to +90°C | 7 | 760 1370 1520 | 50 | * | * | * | * | | | * | * | * | * | | | | |
| 8 | +8°C | -50°C to +90°C | 7 | 760 1050 6 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | +8°C | -50°C to +90°C | 7 | 760 1050 6 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 28 | +4°C | -50°C to +100°C | 5 | 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 8 | +8°C | -50°C to +90°C | 7 | 760 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 18 | +8°C | -40°C to +80°C | 7 | 760 1370 1520 | 50 100 250 | * | * | * | * | | | * | * | * | * | | | | |
| 17 4 17.5 5 | +15°C | -50°C to +95°C | 7 | 610 760 6 920 6 1220 | 25 50 | * | | | * | | | * | * | * | * | | | | |
| 17 4 17.5 5 | +15°C | -50°C to +95°C | 7 | 610 760 6 920 6 1220 | 25 50 | * | | | * | | | * | * | * | * | | | | |

*J) for UV prints we offer the special laminating films ORAGUARD® 210DU and ORAGUARD® 215DU.

**J) ORAGUARD® 293F and 290F are covered with a release material consisting of a 36 micron polyester film.

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Films for solvent based inkjet printing

| Description | | | | | | |
|-------------------------|--------------------------|--|--------------------------------------|---|---|--|
| Product | Front Materials | Colours / surfaces Gloss (G) Matt (M) Semi-gloss (SG) | Adhesive | Covering Material | Areas of use * | |
| Medium-term Application | ORALITE® 5400 | Retroreflective special cast PVC film, 90 micron | Various colours | Solvent polyacrylate, permanent | PE-coated double sided silicone paper 145 g/m ² | Developed for the manufacture of guidance and information signs as well as for reflective advertising. For short-term outdoor use. Suitable for digital printing with solvent based inks and for use on cutting plotters. Good adaptability also to uneven surfaces. |
| | ORALITE® 5200 | Retroreflective special cast PVC film, 80 micron | Various colours | Solvent polyacrylate, permanent | PE-coated double sided silicone paper 145 g/m ² | For the manufacture of temporary sign boards and reflective advertising. |
| | ORAJET® 3165 | Special PVC film 100 micron | White (G), (M), (SG) | Solvent polyacrylate, permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor applications. |
| | | | Transparent (G), (M), (SG) | Transparent | | |
| | ORAJET® 3165RA | Special PVC film 100 micron | White (G), (M) | Solvent polyacrylate, permanent, grey | PE-coated double sided silicone paper 165 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor application. The "Rapid Air" technology enables easy and rapid application without air inclusion, especially for large-sized graphics or decals. |
| | ORAJET® 3169 | Special PVC film 100 micron | White (G), (M), (SG) | Solvent polyacrylate removable, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor applications. |
| | | | Transparent (G), (M), (SG) | Transparent | | |
| | ORAJET® 3651 | Special PVC film 70 micron | White (G), (M), (SG) | Solvent polyacrylate, permanent, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor applications. |
| | | | Transparent (G), (M), (SG) | Transparent | | |
| | ORAJET® 3650 | Special PVC film 70 micron | White (G), (M), (SG) | Solvent polyacrylate, permanent, transparent | PE-coated double sided silicone paper 148 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor applications. |
| | ORAJET® 3691 | Special PVC film 70 micron | White (G), (M), (SG) | Solvent polyacrylate, removable, grey | PE-coated double sided silicone paper 148 g/m ² | For brilliant and colourful displays for digital large-format prints in outdoor applications. |
| | | | Transparent (G), (M), (SG) | Transparent | | |
| | ORAJET® 3451 | Highly flexible special PVC film 80 micron | White (SG) | Solvent polyacrylate, permanent, transparent | PE-coated double sided silicone paper 148 g/m ² | For displays on flexible substrates in outdoor applications, e.g tarpaulins. |
| | ORAJET® 3161DT | Soft PVC film 100 micron | White (G), (M) Transparent (G), (M) | Solvent polyacrylate, permanent, transparent | Silicone-coated paper 135 g/m ² | For brilliant and colourful short- and medium-term outdoor applications. Good processing properties at low temperatures. |
| | ORAJET® 3164 | Soft PVC film 100 micron | White (G), (M) Transparent (G), (M) | Polyacrylate, permanent, transparent | Silicone-coated paper 135 g/m ² | For brilliant and colourful short- and medium-term outdoor applications. |
| | ORAJET® 3164X | Soft PVC film 100 micron | White (G), (M) | Polyacrylate, permanent, grey | Silicone-coated paper 135 g/m ² | For brilliant and colourful short- and medium-term outdoor applications. |
| ORAJET® 3164XRA | Soft PVC film 100 micron | White (G), (M) | Polyacrylate, permanent, grey | PE-coated double-sided silicone paper, 145 g/m ² | For brilliant and colourful digital advertising prints in short- and medium-term outdoor applications. The "Rapid Air" technology enables easy and rapid application without air inclusion, especially of large-sized decals. | |
| ORAJET® 3162 | Soft PVC film 100 micron | White (G), (M) Transparent (G), (M) | Polyacrylate, removable, transparent | Silicone-coated paper 135 g/m ² | For brilliant and colourful short- and medium term outdoor applications. | |
| ORAJET® 3162X | Soft PVC film 100 micron | White (G), (M) | Polyacrylate, removable, grey | Silicone-coated paper 135 g/m ² | For brilliant and colourful short- and medium term outdoor applications. | |
| ORAJET® 3162XRA | Soft PVC film 100 micron | White (G), (M) | Polyacrylate, removable, grey | PE-coated double-sided silicone paper, 145 g/m ² | For brilliant and colourful digital advertising prints in short- and medium-term outdoor applications. The "Rapid Air" technology enables easy and rapid application without air inclusion, especially of large-sized decals. | |
| ORAJET® 3262 | Soft PVC film 200 micron | White (G) | Polyacrylate, removable, transparent | Silicone-coated paper, 135 g/m ² | For brilliant and colourful short- and medium term outdoor applications. | |

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STANDARD SPLICE-FREE

1 Measurement after 24 h
2 Adhered to aluminium

3 Special sizes available upon request
4 Adhered to steel

5 Adhered to acrylic glass
6 Only in white

7 For even surfaces only

| Technical Data* | | | | | | Recommendations | | | | | | | | | | | | | |
|--|---------------------------------------|--|---|--|------------------------------|----------------------------|--|----------------|-------|----------------|----------------|----------------|-----|-------|-------|-----|-----|-----|-------|
| Adhesive 1 power (FINAT- TM 1) N/25 mm (average) | Minimum application temperature | Temperature 2 resistance no variation | Service life (unprinted) in years | Standard sizes 3 of rolls on 3" and 6" cores and Arizona | | ORAGUARD® Laminating Films | | | | | | | | | | | | | |
| | | | | Widths (mm) | | Lengths (m) | | 293/ 293F** | 297GF | 290/ 290F** | 215/ 215DU* | 210/ 210DU* | 200 | 220HG | 221HG | 372 | 240 | 236 | 255AS |
| 15 4 film tear | +10°C | -50°C to +82°C | 4 | 610 1220 | 50 | * | | * | | | | * | * | * | * | | | | |
| 15 4 film tear | +10°C | -50°C to +82°C | 3 | 610 1220 | 50 | * | | * | | | | * | * | * | * | | | | |
| 18 | +8°C | -40°C to +80°C | 5 | 760 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 18 | +8°C | -40°C to +80°C | 5 | 760 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 8 | +8°C | -40°C to +80°C | 5 | 760 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 18 | +8°C | -40°C to +80°C | 5 | 760 1050 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 18 | +8°C | -40°C to +80°C | 5 | 760 1050 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 8 | +8°C | -40°C to +80°C | 5 | 760 1050 1370 1520 | 50 100 250 | | | | * | * | | * | * | * | * | | | | |
| 14 | +8°C | -20°C to +65°C | 4 | 760 1370 1520 | 50 100 250 | | | | * | | | | | | | | | | |
| 18 | -5°C | -40°C to +80°C | 4 | 760 1370 1520 | 50 100 250 | | | | | * | * | * | * | * | * | | | | |
| 16 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | * | * | * | * | * | * | | | | |
| 16 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | * | * | * | * | * | * | | | | |
| 16 | +10°C | -40°C to +80°C | 4 | 1050 1370 1520 | 50 | | | | | * | * | * | * | * | * | | | | |
| 6 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | * | * | * | * | * | * | | | | |
| 6 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | * | * | * | * | * | * | | | | |
| 6 | +10°C | -40°C to +80°C | 4 | 1050 1370 1520 | 50 | | | | | * | * | * | * | * | * | | | | |
| 6 | +10°C | -40°C to +80°C | 4 | 1370 | 50 100 | | | | | * | * | * | * | * | * | | | | |

*) for UV prints we offer the special laminating films ORAGUARD® 210DU and ORAGUARD® 215DU.

**) ORAGUARD® 293F and 290F are covered with a release material consisting of a 36 micron polyester film.

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Films for solvent based inkjet printing

| Description | | | | | | |
|-------------------------|-------------------------------|--|--|---|--|--|
| Product | Front Materials | Colours / surfaces Gloss (G) Matt (M) Semi-gloss (SG) | Adhesive | Covering Material | Areas of use * | |
| Medium-term Application | ORAJET® 3268 | Soft PVC film 150 micron | White (M) | Polyacrylate, easily removable, transparent | Silicone coated paper 135 g/m ² | For large and colourful indoor applications such as decorations and advertisements, e.g. on inner walls. |
| | ORAJET® 3628 | Soft PVC film 80 micron | White (G), (M) Transparent (G), (M) | Polyacrylate, easily removable, transparent | Silicone coated paper 135 g/m ² | For large and colourful indoor applications such as decorations and advertisements, e.g. on inner walls. |
| | ORAJET® 3640 | Soft PVC film 80 micron | White (G), (M) Transparent (G), (M) | Polyacrylate, permanent, transparent | Silicone coated paper 135 g/m ² | For brilliant and colourful displays in short- and medium-term outdoor applications. |
| | ORAJET® 3641 | Soft PVC film 80 micron | White (G), (M) | Polyacrylate, permanent, grey | Silicone coated paper 135 g/m ² | For brilliant and colourful displays in short- and medium term outdoor applications. |
| | ORAJET® 3620 | Soft PVC film 80 micron | White (G), (M) Transparent (G), (M) | Polyacrylate, removable, transparent | Silicone coated paper 135 g/m ² | For brilliant and colourful displays in short- and medium term outdoor applications. |
| | ORAJET® 3621 | Soft PVC film 80 micron | White (G), (M) | Polyacrylate, removable, grey | Silicone coated paper 135 g/m ² | For brilliant and colourful displays in short- and medium term outdoor applications. |
| Short-term Application | ORACAL® 1663 | Highly pigmented opaque PVC film 110 micron | White (G), (M) | Solvent polyacrylate, removable, transparent | Silicone coated paper 135 g/m ² | For ORAFOL® Floor Graphics systems in connection with ORAGUARD® 250AS or 255AS. Excellent opacity suppressing colour shadows of the floor surface. The adhesive guarantees clean removal. |
| | ORACAL® 1660 | Highly pigmented opaque PVC film 110 micron | White (G), (M) | Polyacrylate, removable, transparent | Silicone coated paper 135 g/m ² | For marking and decoration with high demands on resistance and durability, e.g. lettering on vehicles and means of transportation. |
| | ORACAL® 1670 | Highly pigmented opaque PVC film 110 micron | White (G), (M) | Polyacrylate, permanent, transparent | Silicone coated paper 135 g/m ² | For marking and decoration with high demands on resistance and durability, e.g. lettering on vehicles and means of transportation. |
| | ORAJET® 3675 | Perforated special PVC film 140 micron | White (G) with black backing | Solvent polyacrylate, permanent, transparent | Silicone coated paper non-perforated 135 g/m ² | Window Graphics Film for advertising on even, transparent glass surfaces that should allow light to pass through, e.g. application on means of transportation (only with ORAGUARD® 297GF), 50% printable area. |
| | ORAJET® 3635 | Perforated special PVC film 140 micron | White (G) with black backing | Solvent polyacrylate, removable, transparent | Silicone coated paper non-perforated 135 g/m ² | Window Graphics Film for advertising on even, transparent glass surfaces that should allow light to pass through, e.g. application on means of transportation (only with ORAGUARD® 297GF), 50% printable area. |
| | ORAJET® 3676 | Perforated special PVC film 140 micron | White (G) with black backing | Solvent polyacrylate, permanent, transparent | Silicone coated paper non-perforated 135 g/m ² | Window Graphics Film for advertising on even, transparent glass surfaces that should allow light to pass through, e.g. application on means of transportation (only with ORAGUARD® 297GF), 60% printable area. |
| | ORAJET® 3636 | Perforated special PVC film 140 micron | White (G) with black backing | Solvent polyacrylate, removable, transparent | Silicone coated paper non-perforated 135 g/m ² | Window Graphics Film for advertising on even, transparent glass surfaces that should allow light to pass through, e.g. application on means of transportation (only with ORAGUARD® 297GF), 60% printable area. |
| | ORAJET® 3174X 3174 | Polypropylene film, top coated, PVC-free 100 micron | White (G), (M) | Polyacrylate permanent, grey Polyacrylate permanent, transparent | Silicone coated paper 135 g/m ² | For eco-friendly brilliant and colourful advertising for indoor and short-term outdoor use. Suitable for even and slightly curved surfaces (recommended: ORAGUARD® 236). |

For information about ICC profiles please see www.orafol.com
The films are printable with solvent-based, UV-curable and latex inkjet printers
STANDARD SPLICE-FREE

- ① Measurement after 24 h
- ② Adhered to aluminium
- ③ Special sizes available upon request
- ④ For even surfaces only



| Technical Data* | | | | | | Recommendations | | | | | | | | | | | | | | | |
|---|---------------------------------|---------------------------------------|-----------------------------------|--|------------------------------|----------------------------|---------------|-------|---------------|---------------|---------------|-----|-------|-------|-----|-----|-----|-------|-------|---|---|
| Adhesive I power (FINAT-TM 1) N/25 mm (average) | Minimum application temperature | Temperature 2 resistance no variation | Service life (unprinted) in years | Standard sizes 3 of rolls on 3" and 6" cores and Arizona | | ORAGUARD® Laminating Films | | | | | | | | | | | | | | | |
| | | | | Widths (mm) | | Lengths (m) | 293 / 293F ** | 297GF | 290 / 290F ** | 215 / 215DU * | 210 / 210DU * | 200 | 220HG | 221HG | 372 | 240 | 236 | 255AS | 250AS | | |
| 6 | +10°C | - | - | 760 1370 1520 | | 50 100 | | | | | * | * | | | | | | | | | |
| 6 | +10°C | - | - | 760 1370 1520 | | 50 100 250 | | | | | * | * | | | | | | | | | |
| 16 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | | * | * | * | * | * | * | | | | | |
| 16 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | | * | * | * | * | * | * | | | | | |
| 7 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | | * | * | * | * | * | * | | | | | |
| 7 | +10°C | -40°C to +80°C | 4 | 760 1000 1050 1260 | 1370 1520 1600 2000 | 50 100 250 | | | | | * | * | * | * | * | * | | | | | |
| 5 | +8°C | -40°C to +80°C | 3 | 1000 1260 1370 1400 | 1520 | 50 100 250 | | | | | | | | | | | | | | * | * |
| 6 | +10°C | -40°C to +80°C | 3 | 1000 1260 1370 1400 | | 50 100 250 | | | | | * | * | * | * | * | * | | | | | |
| 16 | +10°C | -40°C to +80°C | 3 | 1000 1260 1370 1400 1520 | | 50 100 250 | | | | | * | * | | | * | * | | | | | |
| 12 | 10°C | -40°C to +80°C | 3 | 760 1370 1520 | | 25 50 | | * | | | | | | | | | | | | | |
| 3 | +10°C | -40°C to +80°C | 3 | 760 1370 1520 | | 25 50 | | * | | | | | | | | | | | | | |
| 12 | +10°C | -40°C to +80°C | 3 | 760 1370 1520 | | 25 50 | | * | | | | | | | | | | | | | |
| 3 | +10°C | -40°C to +80°C | 3 | 760 1370 1520 | | 25 50 | | * | | | | | | | | | | | | | |
| 16 | +10°C | -40°C to +80°C | 2 | 760 1370 1520 | | 50 | | | | | | | | | | | | | | * | |

*) for UV prints we offer the special laminating films ORAGUARD® 210DU and ORAGUARD® 215DU.
 **) ORAGUARD® 293F and 290F are covered with a release material consisting of a 36 micron polyester film.
 The statements in this information sheet are based upon our knowledge and practical experience. This data is intended only as a source of information and is given without guarantee and does not constitute a warranty.
 Due to the wide variety of possible uses and applications, customers should independently determine the suitability of this material for their specific purpose, prior to use.

** ORAJET® 3675, 3635, 3676 and 3636 are not printable with UV-curable inks.



Films for thermotransfer printing

| Description | | | | | | |
|-------------------------|--------------|---|---|--|--|---|
| | Product | Front Materials | Colours / surface finish ¹ Gloss (G) Matt (M) Semi-gloss (SG) | Adhesive | Covering Material | Areas of use * |
| Long-term Application | ORACAL® 951 | Cast PVC film 50 micron | White (G) Transparent (G) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For displays with highest degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. Particularly suitable for rivets and corrugations. |
| | ORACAL® 820G | Cast special PVC film 55 micron Safety film | White (G) | Polyacrylate, permanent, transparent | PE-coated paper on both sides 148 g/m ² | For strongly adhering stickers with the character of documents. Removal and re-use is impossible. |
| | ORACAL® 751C | Cast PVC film 60 micron | White (G) Transparent (G) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For displays with an excellent degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. Sticks very well in rivets and corrugations. |
| | ORACAL® 551 | Polymeric PVC film 65 micron | White (G) Transparent (G) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For displays with a high degree of brilliancy and durability in outdoor applications, e.g. vehicle lettering. |
| | ORACAL® 8500 | Translucent special PVC film 80 micron | White (SG) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For illuminated outdoor displays, e.g. application on light boxes. |
| Medium-term Application | ORACAL® 651 | Special PVC film 70 micron | White (G) Transparent (G) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For decorative and colourful outdoor advertising. |
| | ORACAL® 451 | Highly flexible Special PVC film 80 micron | White (SG) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 137 g/m ² | For advertising on flexible surfaces in outdoor applications, e.g. tarpaulins. |
| | ORACAL® 641 | Soft PVC film 75 micron | White (G) Transparent (G) | Polyacrylate, permanent, transparent | Silicone coated paper 135 g/m ² | For decorative and colourful outdoor advertising. |
| Short-term Application | ORACAL® 1663 | Highly pigmented special PVC film 110 micron | White (G) | Solvent polyacrylate, removable, transparent | Silicone coated paper 135 g/m ² | For floor graphics in connection with ORAGUARD® laminating films 250AS or 255AS. |

For information about ICC profiles please see www.orafol.com

Materials for water-based ink-jet printing

| Description | | | | | | |
|---------------------|--------------|---|---|--|--|---|
| | Product | Front Materials | Colours / surface finish ¹ Gloss (G) Matt (M) Semi-gloss (SG) | Adhesive | Covering Material | Areas of use * |
| Outdoor Application | ORAJET® 1917 | Special soft PVC film with one-sided microporous water-proof inkjet coating 140 micron | White (M) | Solvent polyacrylate, permanent, transparent | Silicone coated paper 135 g/m ² | For brilliant and colourful large-format advertising. Long-term protection against UV-rays and mechanical stress in combination with ORAGUARD® laminating films. If you use dye-inks lamination is also necessary for indoor applications. For outdoor applications with direct water contact, sealing of the edges is recommended. |
| Indoor - | ORAJET® 1902 | Coated paper 120 g/m ² with one-sided special inkjet coating | White (M) | Polyacrylate, permanent, transparent | Silicone coated paper 80 g/m ² | For inexpensive production of large-format prints for short-term indoor decoration. |

For information about ICC profiles please see www.orafol.com

- ¹ Measurement after 24 h
² Adhered to aluminium
³ Special sizes available upon request

- ⁴ For even surfaces only
⁵ Colours on request



| Technical Data* | | | | | | | Recommendations | | | | | | | | | | | | | | | | | |
|--|--|---|--|---|---|----------------|----------------------------|-------|------------------|------------------|------------------|-----|-------|-------|-----|-----|-----|-------|-------|--|--|---|---|--|
| Recommended inks 1) dye inks 2) pigmented 3) oil-based 4) mild solvent | Adhesive I power (FINAT-TM 1) N/25 mm (average) | Minimum applica- tion tempe- rature | Tempera- ture II resistance no variation | Service life (unprinted) in years | Standard sizes III of rolls on 2" cores | | ORAGUARD® Laminating Films | | | | | | | | | | | | | | | | | |
| | | | | | Widths (mm) | Lengths (m) | 293 / 293F ** | 297GF | 290 / 290F ** | 215 / 215DU * | 210 / 210DU * | 200 | 220HG | 221HG | 372 | 240 | 236 | 255AS | 250AS | | | | | |
| - | 18 | +8°C | -50°C to +110°C | 10 | 378 914 1000 | 50 | * | * | * | | | | | | | | | | | | | | | |
| | | | | 8 | | | | | | | | | | | | | | | | | | | | |
| | The adhesive power is higher than its tensile strength | +10°C | -40°C to +90°C | 5 | 378 914 1000 | 50 | | | | | | | | | | | | | | | | | | |
| - | 18 | +8°C | -50°C to +120°C | 8 | 378 914 1000 | 50 | * | * | * | | | | | | | | | | | | | | | |
| | | | | 7 | | | | | | | | | | | | | | | | | | | | |
| - | 18 | +8°C | -50°C to +90°C | 8 | 378 914 1000 | 50 | | * | * | * | | | * | * | * | * | | | | | | | | |
| | | | | 7 | | | | | | | | | | | | | | | | | | | | |
| - | 18 (glass) 16 (acrylic glass) | +8°C | -40°C to +90°C | 7 | 378 914 1000 | 50 | | | | * | | | * | * | * | * | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 18 | +8°C | -40°C to +80°C | 5 | 378 914 1000 | 50 | | | | * | * | | * | * | * | * | | | | | | | | |
| | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| - | 14 | +8°C | -20°C to +65°C | 3 | 378 914 1000 | 50 | | | | * | * | | | | | | | | | | | | | |
| - | 16 | +10°C | -40°C to +80°C | 4 | 378 914 1000 | 50 | | | | | * | * | * | * | * | * | | | | | | | | |
| | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| - | 5 | +8°C | -40°C to +80°C | 3 | 378 914 1000 | 50 | | | | | | | | | | | | | | | | * | * | |

*) for UV prints we offer the special laminating films ORAGUARD® 210DU and ORAGUARD® 215DU.
 **) ORAGUARD® 293F and 290F are covered with a release material consisting of a 36 micron polyester film.
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 Due to the wide variety of possible uses and applications, customers should independently determine the suitability of this material for their specific purpose, prior to use.

| Technical Data* | | | | | | | Recommendations | | | | | | | | | | | | | | | | | |
|---|--|---|--|---|---|----------------|----------------------------|-------|------------------|------------------|------------------|-----|-------|-------|-----|-----|-----|-------|-------|--|--|--|--|--|
| Recommended inks 1) dye inks 2) pigmented 3) oil-based 4) eco-solvent | Adhesive I power (FINAT-TM 1) N/25 mm (average) | Minimum applica- tion tempe- rature | Tempera- ture II resistance no variation | Service life (unprinted) in years | Standard sizes III of rolls on 2" cores | | ORAGUARD® Laminating Films | | | | | | | | | | | | | | | | | |
| | | | | | Widths (mm) | Lengths (m) | 293 / 293F ** | 297GF | 290 / 290F ** | 215 / 215DU * | 210 / 210DU * | 200 | 220HG | 221HG | 372 | 240 | 236 | 255AS | 250AS | | | | | |
| 1, 2, 3 & 4 | 18 | +10°C | -30°C to +60°C | 1 | 914 1070 1270 1370 1520 | 20 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 & 2 | 16 (tear of the paper) | +10°C | -20°C to +60°C | 1 | 914 1070 1270 1520 | 20 | | | | * | * | * | | * | * | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

*) for UV prints we offer the special laminating films ORAGUARD® 210DU and ORAGUARD® 215DU.
 **) ORAGUARD® 293F and 290F are covered with a release material consisting of a 36 micron polyester film.
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 Due to the wide variety of possible uses and applications, customers should independently determine the suitability of this material for their specific purpose, prior to use.

Laminating Films / Mounting Films

| Description | | | | | |
|-------------------------|-----------------------------------|---|---|---|--|
| Product | Front Material | Colours / Surface Finish Gloss (G), Silk-gloss (SG) Matt (M), High-gloss (HG) Sand-grain structure (SO) Semi-gloss (SG) | Adhesive | Covering Material | |
| Laminating Films | ORAGUARD® 293 | Premium cast PVC film, 30 micron, ultra flexible with highest level of UV-protection | Transparent (G), (M) | Solvent polyacrylate, permanent | Silicone coated paper, white, 90 g/m ² |
| | ORAGUARD® 293F | Premium cast PVC film, 30 micron, ultra flexible with highest level of UV-protection | Transparent (G) | Solvent polyacrylate, permanent | Silicone coated polyester film, 36 micron |
| | ORAGUARD® 297GF | Premium cast PVC film, 70 micron, with highest level of UV-protection | Transparent (G) | Solvent polyacrylate, permanent | Silicone coated polyester film, 36 micron |
| | ORAGUARD® 290 | Premium cast PVC film, 50 micron, with highest level of UV-protection | Transparent (G), (M) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 290F | Premium cast PVC film, 50 micron, with highest level of UV-protection | Transparent (G) | Solvent polyacrylate, permanent | Silicone coated polyester film, 36 micron |
| | ORAGUARD® 215 | Polymeric PVC film, 75 micron, with high-level UV-protection | Transparent (G), (SG), (M) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 215DU | Polymeric PVC film, 75 micron, with high level UV-protection | Transparent (G), (M) | Solvent polyacrylate, permanent | Silicone coated paper, white, 90g/m ² |
| | ORAGUARD® 210 | Soft PVC film, 70 micron, with high-level UV-protection | Transparent (G), (SG), (M), (SO) ^④ , (S) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 210DU | Polymeric PVC film, 75 micron, with high level UV-protection | Transparent (G), (M) | Solvent polyacrylate, permanent | Silicone coated paper, white, 90g/m ² |
| | ORAGUARD® 200 | Soft PVC film, 70 micron, with high-level UV-protection | Transparent (G), (SG), (M) | Polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 220HG | Polyester film, 36 micron, with high-level of UV-protection | Transparent (HG) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 221HG | Polyester film, 75 micron, with high-level of UV-protection | Transparent (HG) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 372 | Special polyester film, 23 micron, with high-level UV-protection | Transparent (HG) | Solvent polyacrylate, permanent | Double-sided silicone coated PE paper, white 160 g/m ² |
| | ORAGUARD® 240 | ETFE film, 25 micron | Transparent (G) | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 236 | Polypropylene film, 60 micron, with effective UV-protection, PVC-free | Highly transparent (G) | Polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 255AS | Special PVC film, 170 micron, with high-level UV-protection | Transparent, raised non-skid texture | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| | ORAGUARD® 250AS | Special PVC film, 120 micron, with high-level UV-protection | Transparent, raised non-skid texture | Solvent polyacrylate, permanent | Silicone coated paper, white 90 g/m ² |
| Mounting Films | ORABOND® 4052 ^① | Polyester film, 12 micron | Transparent | Double sided solvent polyacrylate, permanent | Double-sided silicone coated PE paper, white 120 g/m ² |
| | ORABOND® 4032 ^① | Polyester film, 12 micron | Transparent | Covered side: Solvent polyacrylate, removable. Open side: Solvent polyacrylate, permanent | Double sided silicone- coated PE paper, white 120 g/m ² |
| | ORABOND® 4040 ^① | Polyester film, 12 micron | Transparent | Double sided polyacrylate, permanent | Double-sided siliconised glassine paper, white 90 g/m ² |
| | ORAFILM® 1375 | Without | Transparent | Pure acrylate, permanent | Double-sided silicone coated PE paper, brown, 100 g/m ² |
| | ORABOND® 1392 | Hard PVC film, 38 micron | White | Double-sided modified acrylic adhesive, permanent | Double-sided silicone coated paper, brown, 90 g/m ² |
| | ORABOND® 1395 | Polyester film, 12 micron | Transparent | Double-sided modified acrylic adhesive, permanent | Double-sided silicone coated paper, brown 90 g/m ² |
| | ORAMOUNT® 1811 | PE foam 1100 micron | White | Double-sided modified acrylic adhesive, permanent | Double-sided silicone coated paper, blue 90 g/m ² |

① Measurement after 24 h
 ② Adhered to aluminium
 ③ Special sizes available on request

④ Also available with double sided covering
 ⑤ 210 (SO) not available in 1550 mm, 1400 mm and 760 mm.

| Areas of Use ** | Technical Data* | | | | | | |
|---|---|---------------------------------------|---|--|------------------------------|---|-------------|
| | Adhesive 1 power (FINAT- TM 1) N/25 mm (average) | Minimum application temperature | Temperature 2 resistance (no variation) | Additional UV-pro- tection *** in years | Standard sizes 3 of rolls | | |
| | | | | | Widths (mm) | | Lengths (m) |
| For indoor and outdoor protection of large-format digital prints. Because of its very good conformability especially to rivets and corrugations, ORAGUARD® 293 is recommended for car wrapping in combination with ORAJET® 3951. | 12 | +8°C | -50°C to +110°C | +4 | 760 950 | 1370 1400 1550 | 50 |
| For indoor and outdoor protection of large-format digital prints. Because of its very good conformability especially to rivets and corrugations, ORAGUARD® 293 is recommended for car wrapping in combination with ORAJET® 3951. | 12 | +8°C | -50°C to +110°C | +4 | 760 950 | 1370 1400 1550 | 50 |
| Developed for protection of the printed ORAJET® Window Graphics film. The laminating film with its optimised hardness covers the perforated film so that no humidity, dust or other contaminations can penetrate the perforation of the film. | 12 | +8°C | -50°C to +110°C | +4 | 760 950 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor application. In combination with respective ORAFOL® digital printing films esp. for car livery and wrapping. | 12 | +8°C | -50°C to +110°C | +4 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor application. In combination with respective ORAFOL® digital printing films esp. for car livery and wrapping. | 12 | +8°C | -50°C to +110°C | +4 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor applications. | 12 | +8°C | -50°C to +90°C | +3 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor applications. Especially recommended on UV digital printings. | 14 | +8°C | -50°C to +90°C | +3 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor applications. | 12 | +8°C | -40°C to +80°C | +2 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format images in indoor and outdoor applications. Especially recommended on UV digital printings. | 14 | +8°C | -50°C to +90°C | +2 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For protection of digitally printed large-format pictures in indoor and outdoor applications. | 10 | +10°C | -40°C to +80°C | +1 | 760 950 1050 1300 | 1370 1400 1550 | 50 |
| For indoor and outdoor protection of large-format digital prints. | 12 | +8°C | -40°C to +120°C | +2 | 950 1050 1300 | 1400 1550 | 50 |
| For indoor and outdoor protection of large-format digital prints on even surfaces. Provides a maximum value of brilliancy and luminosity. | 12 | +8°C | -40°C to +120°C | +2 | 950 1050 1300 | 1400 1550 | 50 |
| Surface protection especially against graffiti and environmental influences in indoor and outdoor applications (Anti Graffiti Film) on even surfaces. | 12 | +10°C | -40°C to +120°C | +2 | 1000 1260 | | 50 |
| Excellent protection especially against graffiti and environmental influences in long-term outdoor applications (Anti Graffiti Film) on even surfaces. | 12 | +8°C | -50°C to +120°C | +5 | 950 1300 | 1370 1520 | 50 |
| For the eco-friendly protection of large digital prints for indoor and short-term outdoor use. Especially recommended in combination with ORAJET® 3174. | 12 | +10°C | -40°C to +80°C | +1 | 1400 1370 | | 50 |
| With its high skid resistance and its low abrasion especially suitable for protection of floor graphics in indoor applications. Extremely stress resistant. | 12 | +8°C | -40°C to +80°C | - | 1050 1300 1400 | | 50 |
| With its high skid resistance and its low abrasion especially suited for protection of floor graphics in indoor applications. | 12 | +8°C | -40°C to +80°C | - | 950 1050 1300 | 1370 1400 1550 | 50 |
| Mounting film for self-adhesive protection of smooth surfaces. | 11 | +8°C | -40°C to +150°C | Not applicable | 1400 | | 50 |
| Mounting film for self-adhesive protection of smooth surfaces. The adhesive guarantees residueless removal within 2 years of outdoor application. | Open side: 11 Covered side: 2 | +8°C | -40°C to +120°C | Not applicable | 1050 1300 1550 | | 50 |
| Mounting film for self-adhesive protection of smooth surfaces. | 11 | +10°C | -40°C to +150°C | Not applicable | 1050 1300 | 1550 | 50 |
| For signs, decorations, front plates and displays; for smooth or lightly porous surfaces. | 20 | +18°C | -40°C to +170°C | Not applicable | 305 610 | 1220 | 50 |
| For the installation of heavy displays. | 38 | +15°C | -40°C to +70°C | Not applicable | 12 15 19 25 | 30 38 50 60 75 100 1000 1550 | 50 |
| For the attachment of signs, covers, scales, metal and plastic films and for general fixing. | 28 | +15°C | -40°C to +160°C | Not applicable | 12 15 19 25 | 30 38 50 60 75 100 1000 1550 | 50 |
| For the installation of heavy displays, adheres well even to rough and difficult surfaces. | foam tear > 18 | +15°C | -40°C to +80°C | Not applicable | 12 15 19 25 | 30 38 50 60 75 100 1250 | 50 |

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** Laminating films increase the life of digitally printed pictures and graphics. In addition, they protect these against UV-A, -B and -C rays and abrasion. The life of a printed overlaminated film essentially depends on the materials (inks, resin or ribbons), their quality (durability and UV-resistance, please see product specifications of the manufacturers), their drying degree, curing times and on conditions of their applications and use. Own tests are absolutely necessary.

*** The ORAFOL® data refer to the life of an unprotected picture which has the durability of one year (normal Central European climate).



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ORAFOL provides global excellence through technology, quality and service.

Notes on Processing and Handling

Introduction

ORAFOL® offers a wide range of self-adhesive digital printing materials for many different applications. They come with a well-matched set of laminating films. To ensure that the films display the specified properties, it is important to follow the instructions for preparation and application which can be found on www.orafol.com. If you want to apply an ORAFOL® material on a car, please also see our practical information for self-adhesive films for application on cars (can be downloaded also on www.orafol.com). ORAFOL recommends to use only material with the same batch number for one graphical application. In this context ORAFOL ensures that every rolls consists of material of the same batch number and consequently does not have any splice. When different batch numbers are used the technician should make tests to find out possible differences in using the films and in the quality of the graphical application.

Storage and Processing Conditions

The self-adhesive products which ORAFOL supplies in rolls should at all times be stored either suspended (with end caps) or standing on end on the roll blocks, and never lying flat (without end caps). For storage and processing, they should be kept in a cool dry place, protected from daylight. Relative air humidity between 50% and 60% and a temperature between +18° C and +22° C should be ensured. Direct sunlight, storage beside radiators etc. should by all means be avoided. Please observe the shelf life instructions contained in the technical data sheet accompanying each film.

Instructions for Printing

The digital printing materials should generally be handled with a high degree of care. Cotton gloves should be used to prevent damage to the surface or soiling. Check the surface quality prior to printing or application. Also check the print file with profiling. The ORAFOL®/ORAJET® digital printing media require – due to their different qualities like the thickness of the adhesive layer – different parameter settings of the printer and the selecting software (RIP). Make sure you take the relevant amount of ink and specific colour definitions into account. In addition, check the specifications of the digital printing materials and the inks for their respective applications (indoor / outdoor) and durability, and match them accordingly.

Drying up

Freshly printed films should be spread out and left to dry after printing, to allow the residual solvent to evaporate. If freshly printed vinyls are plotted in the printed areas, the vinyl might shrink. Depending on the used ink, laminating too early may affect the functionality of the film (adhesive power, service life) by preventing residual solvents to evaporate. Printed and not sufficiently dried films shrink after printing during the drying process.

If the drying process of the vinyls takes place after application of the substrate, the film may shrink and come off at the edges, from corrugations and rivets. Following these processing and handling instructions, we recommend to spread out and dry the film for at least 72 hours (lying flat or hanging).

Lamination

Lamination of inkjet prints is recommended to ensure longer lives at optimum quality (gloss, colour depth, mechanical damage). ORAGUARD® laminating films enhance the colour effect for the desired appearance of the surface (glossy, matt, semi-gloss), provide excellent protection against the UV rays of the sun destroying the colour pigments, and against humidity and abrasion. Soiling can easily be removed by using common cleaning agents. We recommend only using films of same manufacture and type (e.g. monomeric PVC film on monomeric PVC film, and polymeric PVC film on polymeric PVC film) as their raw materials are accurately matched with each other. Lamination has to be done stress-free to prevent a deformation of the film compound. For the same reason we recommend to ensure that the temperature of the compactor is not higher than +30°C. Furthermore, we refer to our list of recommendations for complementary application of the printing materials in inkjet and thermotransfer printing, and to the specific laminating films provided for their surface protection. For product information about ORAGUARD® laminates, please see www.orafol.com.

Application

The application is described in the practical information for plotter films. For the application on cars, please see in addition the practical information on how to apply self-adhesive films on cars. For application on car windows, the remarks in the practical information for self-adhesive films for application on cars are to be followed.

Removability

Please see the practical information for plotter films.

General Information

ORAFOL provides information on ICC profiles for various printers. Please go to www.orafol.com. The information in here is based on our knowledge and experience. We do not explain all considering aspects of application. Specialised or occupational knowledge and competence of a professional sign maker is presupposed. Due to the diversity of potential influencing factors during application and use, we recommend customers who wish to use the films for special applications to make their own tests of our products. No legally binding warranty of certain qualities can be derived from our information.

Digital Printing Materials
Engineered to Perform Better™



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Reflective Solutions

Truck & Trailer - School Bus - Rail - Agriculture - Emergency
Police - Fire - Construction - Automotive - Marine





Safety

Visibility

Performance

Day or Night, Weather or Not –
ORAFOL provides reflective solutions worldwide
that enhance visibility and save lives.

Reflexite®

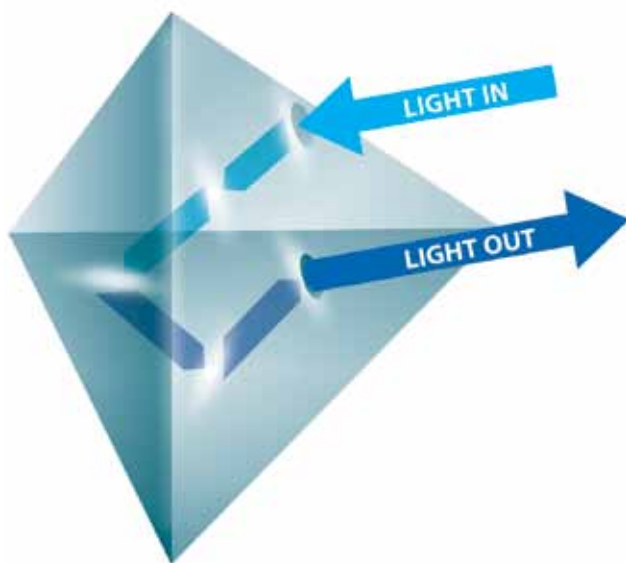
Reflexite® conspicuity tape has a tough, durable construction to ensure you meet conspicuity regulations and standards while improving the safety of fleet operators and fellow drivers.

Technology, Quality & Service

Engineered to Save Lives™

As one of the world's leading manufacturers of reflective materials, the ORAFOL Group earned its reputation for global excellence through its dedication to ingenuity, quality and service. When it comes to supplying products for the transportation industry, we work each day with a dedication grounded by our knowledge that the quality of our products helps to save lives.

Microprismatic Technology Featured in Reflexite® conspicuity products



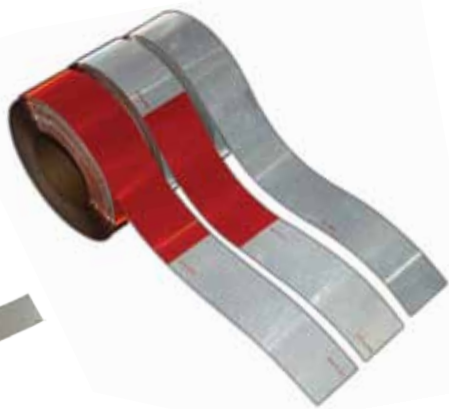
How it works:

Light strikes each of the three surfaces of the microprism before returning to the source. The microprism provides more reflective surface area than a glass bead and will reflect up to 250% more light.

The microprism's economical use of surface area delivers a higher level of performance in all applications, which results in superior long distance visibility of the vehicle and greater awareness by the motoring public.

Reflexite® V82 OEM Grade

Microprismatic Conspicuity Tape



Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 108, DOT-C2
- Maintains reflectivity after impact
- Exceeds requirements by 200%



| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|--------------------------------|----------|
| 18686 | 11" Red/7" White | 2" x 150' roll | 10 year |
| 18692 | 6" Red/6" White | 2" x 150' roll | 10 year |
| 18676 | White | 2" x 150' roll | 10 year |
| 18352 | 11" Red/7" White | 2" x 18" strip | 10 year |
| 18359 | 6" Red/6" White | 2" x 12" strip | 10 year |
| 18347 | White | 2" x 12" strip | 10 year |
| 18349 | White | 2" x 24" crescent tanker strip | 10 year |

Ideal for trucks, trailers, tankers, dump trucks, tow trucks, pick up beds

Reflexite® V92 Daybright®

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 108, DOT-C2
- Maintains reflectivity after impact
- White lines in pattern for maximum daytime visibility



| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|------------------------|----------|
| 18806 | 11" Red/7" White | 2" x 150' roll | 5 year |
| 18816 | 6" Red/6" White | 2" x 150' roll | 5 year |
| 18796 | White | 2" x 150' roll | 5 year |
| 18382 | 11" Red/7" White | 2" x 18" strip, 100 pk | 5 year |
| 18381* | 11" Red/7" White | 2" x 18" strip, 25 pk | 5 year |
| 19567* | 11" Red/7" White | 2" x 18" strip, 5 pk | 5 year |
| 18385 | 6" Red/6" White | 2" x 12" strip, 100 pk | 5 year |
| 19569* | 6" Red/6" White | 2" x 12" strip, 5 pk | 5 year |
| 18379 | White | 2" x 12" strip, 100 pk | 5 year |
| 18378 | White | 2" x 12" strip, 25 pk | 5 year |
| 19568* | White | 2" x 12" strip, 5 pk | 5 year |

*Retail polybags with hanghole

Ideal for trucks, trailers, tankers, dump trucks, tow trucks, pick up beds



Reflexite® V52 Diamond Plate

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 108, DOT-C2
- Maintains reflectivity after impact
- Distinctive diamond plate design compliments truck & trailer components



| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|----------------|----------|
| 18626 | 11" Red/7" White | 2" x 150' roll | 5 year |
| 18629 | 6" Red/6" White | 2" x 150' roll | 5 year |
| 18622 | White | 2" x 150' roll | 5 year |
| 18397 | 11" Red/7" White | 2" x 18" strip | 5 year |
| 18398 | 6" Red/6" White | 2" x 12" strip | 5 year |
| 18396 | White | 2" x 12" strip | 5 year |

Ideal for trucks, trailers, tankers, dump trucks, tow trucks, pick up beds

Truck & Trailer

Reflexite® V42 Retro Fit Grade

Microprismatic Conspicuity Tape

Product benefits include:

- Polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 108, DOT-C2
- Cost effective solutions for retrofitting existing trucks and trailers



| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|----------------|----------|
| 19160 | 11" Red/7" White | 2" x 150' roll | 3 year |

Ideal for trucks, trailers, tankers, dump trucks, tow trucks, pick up beds

Reflexite® Custom Logo

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 108, DOT-C2
- Maintains reflectivity after impact
- Enhances brand image



| Product Code | Color Range | Sizes | Warranty |
|--------------|-----------------------------------|----------------|----------|
| L82 | 11" Red/7" White, 6" Red/6" White | 2" x 150' roll | 10 year |
| L92 | 11" Red/7" White, 6" Red/6" White | 2" x 150' roll | 5 year |
| L52 | 11" Red/7" White, 6" Red/6" White | 2" x 150' roll | 5 year |

*105 roll minimum requirement, call for details

Ideal for trucks, trailers, tankers, dump trucks, tow trucks, pick up beds

Reflexite® V82 School Bus

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 131 & FMVSS 217
- Maintains reflectivity after impact
- Exceeds requirements by 200%



| Product Code | Color Range | Sizes | Warranty |
|--------------|-------------------|----------------|----------|
| 18672 | School Bus Yellow | 2" x 150' roll | 10 year |
| 18670 | School Bus Yellow | 1" x 150' roll | 10 year |

Ideal for marking school bus exits, windows, hatches & perimeters

Reflexite® V92 Daybright® School Bus

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 131 & FMVSS 217
- Maintains reflectivity after impact
- White lines in pattern for maximum daytime visibility



| Product Code | Color Range | Sizes | Warranty |
|--------------|-------------------|----------------|----------|
| 18786 | School Bus Yellow | 2" x 150' roll | 5 year |
| 18781 | School Bus Yellow | 1" x 150' roll | 5 year |

Ideal for marking school bus exits, windows, hatches & perimeters

Reflexite® School Bus Signs

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FMVSS 131 & FMVSS 217
- Maintains reflectivity after impact



| Product Code | Color Range | Sizes | Warranty |
|-------------------------|-------------------|-------|--------------|
| Call for specifications | School Bus Yellow | Sheet | 5 or 10 year |

Ideal for front and rear of school bus

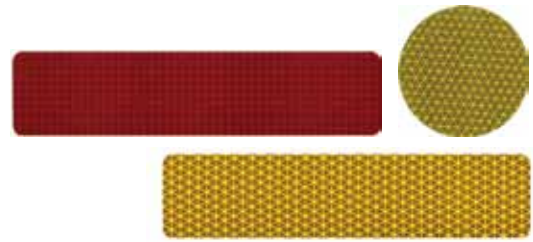


Reflexite® Agricultural Strips & Circles

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to ANSI/ASAE S276.7 standards
- Maintains reflectivity after impact
- Pre-cut strips with radius or square corners



| Product Code | Color Range | Sizes | Warranty |
|--------------|----------------------------|---------------|----------|
| 18327 | V82 Red, radius corners | 2" x 9" strip | 10 year |
| 18366 | V92 Yellow, radius corners | 2" x 9" strip | 5 year |
| 18322 | V82 Red, square corners | 2" x 9" strip | 10 year |
| 18342 | V92 Yellow, square corners | 2" x 9" strip | 5 year |
| 18371 | V82 Red, circle | 3.12" circle | 10 year |
| 18375 | V92 Yellow, circle | 3.12" circle | 5 year |

Ideal for heavy equipment, farm machinery, agricultural and industrial vehicles

Agriculture & Construction

Reflexite® Construction Equipment Marking

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact



| Product Code | Color Range | Sizes | Warranty |
|--------------|----------------------------|----------------|----------|
| 18672 | V82 Yellow 44 | 2" x 150' roll | 10 year |
| 18786 | V92 Yellow 44 | 2" x 150' roll | 5 year |
| 18342 | V92 Yellow, square corners | 2" x 9" strip | 5 year |
| 18375 | V92 Yellow, circle | 3.12" circle | 5 year |

Ideal for construction vehicles & equipment



Reflexite® R99 Rail

Microprismatic Conspicuity Tape



Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Compliance to FRA 224
- Maintains reflectivity after impact
- Adheres easily to flat or curved surfaces

| Product Code | Color Range | Sizes | Warranty |
|--------------|-------------|----------------|----------|
| 18609 | Yellow | 4" x 150' roll | 10 year |
| 18607 | White | 4" x 150' roll | 10 year |
| 18454 | Yellow | 4" x 18" strip | 10 year |
| 18455 | Yellow | 4" x 36" strip | 10 year |

Ideal for marking sides of rail car

Reflexite® Gate Arm

Microprismatic Conspicuity Tape



Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact

| Product Code | Color Range | Sizes | Warranty |
|--------------|---------------------------|----------------|----------|
| 18991 | V82 Red/White Block | 4" x 150' roll | 10 year |
| 18897 | V82 Red/White Block | 2" x 150' roll | 10 year |
| 18852 | V99 Red/White Diagonal RH | 4" x 150' roll | 5 year |
| 18849 | V99 Red/White Diagonal LH | 4" x 150' roll | 5 year |

Ideal for rail gate arm markings



Reflexite® V98 Conformable Graphic Sheeting

Conformable Microprismatic Sheeting



Product benefits include:

- High performance vinyl film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact
- Conforms to vehicle shapes and curves

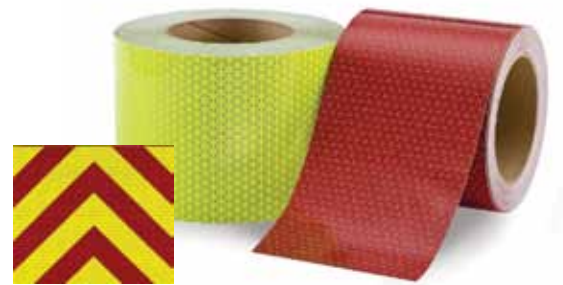
| Product Code | Color Range | Sizes | Warranty |
|-------------------------|--|--|----------|
| Call for specifications | White, Yellow 18, Red, Green, Blue, Orange, Amber, Yellow 44 | Master roll can be slit to a variety of widths (Master roll is 30" x 150') | 5 year |

Ideal for fire, EMS, and police vehicle applications

Emergency Vehicle
Graphics

Reflexite® V98 Chevron Marking Material

Conformable Microprismatic Sheeting



Product benefits include:

- High performance vinyl film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact
- Conforms to vehicle shapes and curves
- **Compliance to NFPA 1901**

| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|----------------|----------|
| 19716 | Red | 6" x 150' roll | 5 year |
| 19718 | Fluorescent Lime | 6" x 150' roll | 3 year |

Ideal for fire apparatus rear per NFPA 1901, EMS, police, and dump truck rear applications



Reflexite® V82 Colors

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact



| Product Code | Color Range | Sizes | Warranty |
|-------------------------|--|--|----------|
| Call for specifications | White, Yellow 18, Red, Green, Blue, Orange, Amber, Yellow 44 | Master roll can be slit to a variety of widths (Master roll is 30" x 150') | 10 year |

Ideal for fire, EMS, and police vehicles

Reflexite® V92 Daybright® Colors

Microprismatic Conspicuity Tape

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact



| Product Code | Color Range | Sizes | Warranty |
|-------------------------|---|--|----------|
| 18732 | White | 1" x 150' roll | 5 year |
| 18751 | Yellow | 1" x 150' roll | 5 year |
| 18709 | Red | 1" x 150' roll | 5 year |
| 18773 | Green | 1" x 150' roll | 5 year |
| 18762 | Blue | 1" x 150' roll | 5 year |
| 18824 | Gold | 1" x 150' roll | 5 year |
| 18828 | Fluorescent Lime | 1" x 150' roll | 3 year |
| 18841 | Fluorescent Orange | 1" x 150' roll | 3 year |
| Call for specifications | White, Yellow, Red, Green, Blue, Orange, Gold, Fl Lime, Fl Orange | Master roll can be slit to a variety of widths (Master roll is 30" x 150') | 5 year |

Ideal for fire, EMS, police, tow trucks

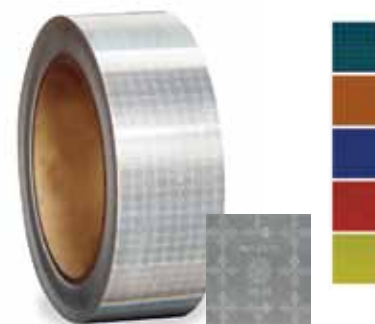


Reflexite[®] Marine Material

Microprismatic Conspicuity Material

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact
- Long-Distance Visibility
- UV-stabilized
- SOLAS approved



| Product Code | Color Range | Sizes | Warranty |
|--------------|--|----------------|----------|
| 18578 | White - Rigid | 2" x 150' roll | - |
| 18055 | White - Flexible | 2" x 150' roll | - |
| D82 | Call for details on ordering color rolls | | |

Ideal for rigid & flexible applications; dayboards, buoys, channel markers

Reflexite[®] Helmet Patches

Product benefits include:

- Superior daytime visibility through 100% fluorescence
- Weather resistant
- Compliance with NFPA 1971, 2007 edition
- Adhesive protected by a silicone coated paper release liner
- Supplied with an aggressive, acrylic based, pressure sensitive adhesive



| Product Code | Color Range | Sizes | Warranty |
|--------------|----------------------|---------------|----------|
| 17724 | Lime, NFPA -16/sheet | 1" x 4" strip | - |
| 17720 | White - 16/sheet | 1" x 4" strip | - |
| 17681 | Lime NFPA - 20/sheet | - | - |
| 17678 | White - 20/sheet | - | - |

Ideal for application on all types of hard hats, including firefighter helmets in compliance with NFPA 1971

Reflexite[®] American Flags

Product benefits include:

- High performance polyester film
- Thin & flexible
- Weather resistant
- Maintains reflectivity after impact



| Product Code | Color Range | Sizes | Warranty |
|--------------|------------------|--------------|----------|
| 18376 | Red, White, Blue | 3.75" x 6.5" | - |
| 18377 | Red, White, Blue | 7.75" x 14" | - |

Ideal for trucks, trailers, recreational & other automotive applications

Other Products

High Visibility Workwear



ANSI Compliant retroreflective trim for use on vests, rainwear, and other garments for the:

- Roadway Construction Worker
- Utility Worker
- Survey Crew
- Railway Worker
- School Crossing Guard
- And much more

Other Markets

Road Building/Work Zone Safety



Available products:

- Cone Collars
- Flexible Roll-Up Signs
- Post Band and Barrel Delineation
- Channelizing Devices
- Retroreflective Marking for Tubular Posts

Fire Safety

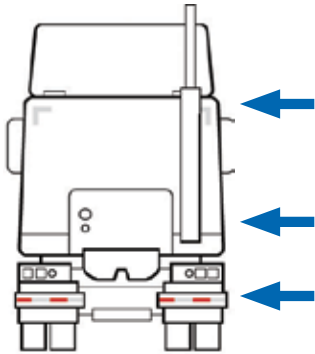


Available products:

- High Temp Retroreflective Fire Trim
- FTP 1500 Series Fire Trim (shown left)

Heavy Duty Truck & Trailer Regulation FMVSS 108 (49CFR 571.108)

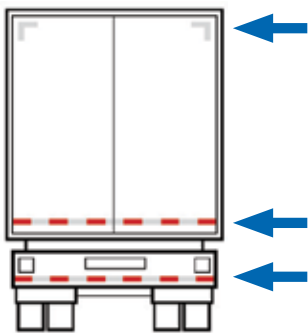
Conspicuity Tape is required on all new trailers manufactured after December 1, 1993.
Alternating RED/ WHITE tape on the side and rear of each trailer.



Application Locations:

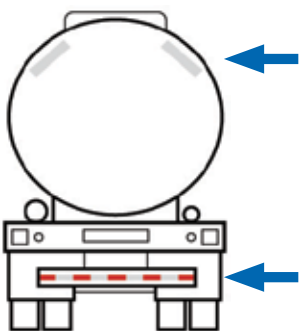
Rear Upper Body

- 12" WHITE strips placed in the upper rear corners



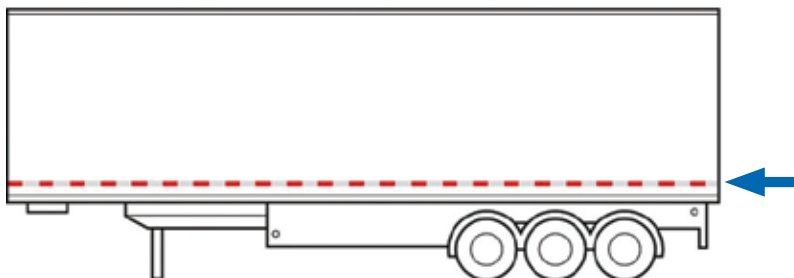
Rear Lower Body

- 2" wide RED/WHITE tape placed on rear full width of vehicle
- 2" wide RED/WHITE tape minimum 24" length on fender, mudflap brackets or within 12" below the top of mud flaps



Side Marking

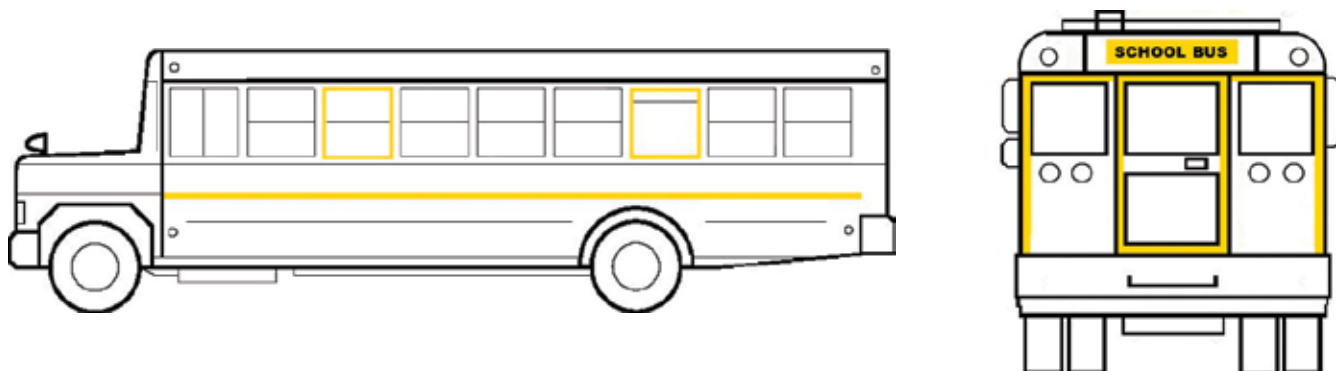
- 2" wide RED/WHITE tape placed on each side of trailer continuous or evenly spaced over 50% of the vehicle



School Bus Regulation – FMVSS 131 & FMVSS 217

Each opening for a required emergency exit shall be outlined around its outside perimeter with a retroreflective tape with a minimum width of 1 inch and either red, white, or yellow in color, that when tested under the conditions specified in S6.1 of Standard No. 131 (49 CFR 571.131), meets the criteria specified.

NOTE: Meets and exceeds the National Standards for School Buses, Federal Specifications, ASTM D4956-94, Type V, FMVSS 131 & FMVSS 217.



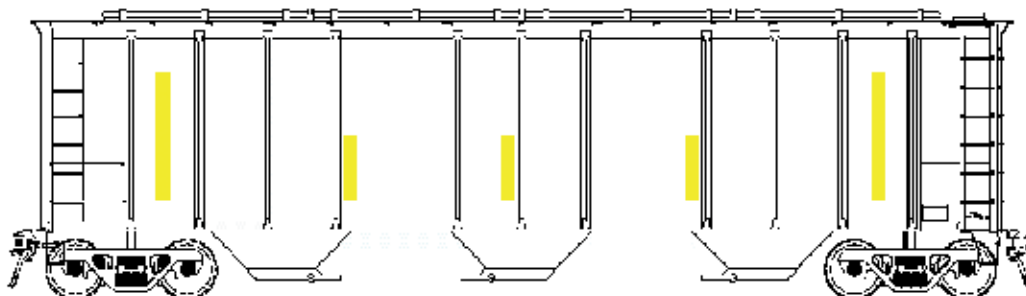
Application locations:

1. 1" strips used to mark side emergency exit windows
2. 1" strips used to mark back emergency exit windows

Rail Regulation – FRA 224

Retroreflective sheeting applied pursuant to this part shall be yellow or white as specified by the chromaticity coordinates of ASTM International's Standard D 4956-04, "Standard Specification for Retroreflective Sheeting for Traffic Control."

NOTE: According to the Federal Railroad Administration, regulation part FRA 224.101, 103, 105 & 106.

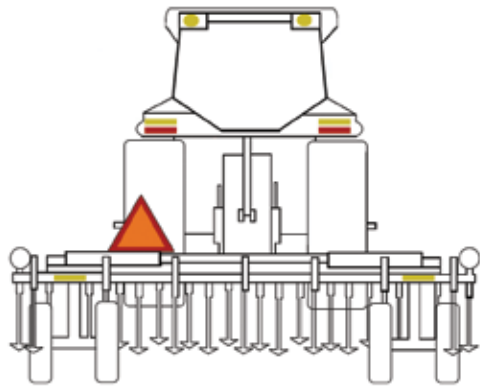


Application locations:

1. Retroreflective sheeting must be applied in strips 4" wide and 18" or 36" long
2. Material can be applied either vertically or horizontally on freight cars only

Agricultural Regulation – ASAE S276.7, ASAE S279.15

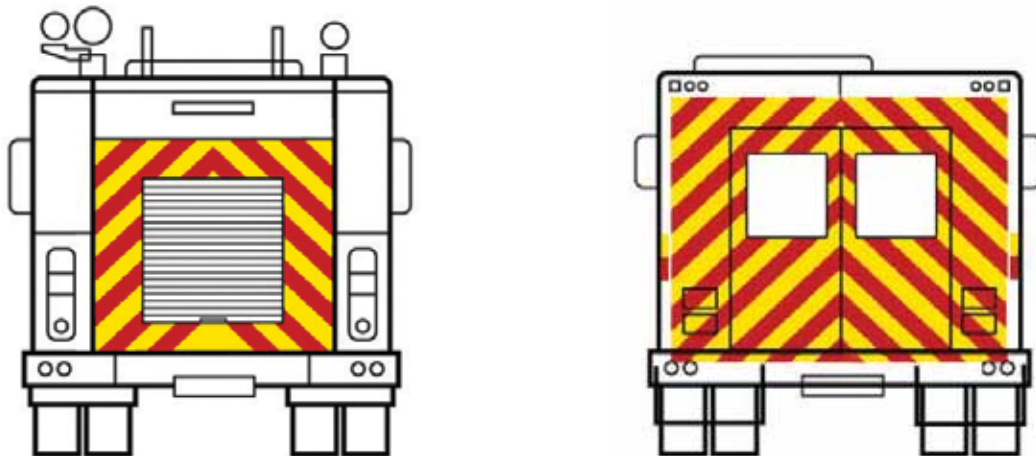
Retroreflective sheeting shall meet requirements of ASTM D4956 for type V sheeting except for the photometric requirements. Retroreflective sheeting shall meet the minimum photometric performance requirements specified in the spec. ASAE S276.7 and ASAE S279.15.



Application locations:

1. 2" x 9" Red retroreflective strip
2. Red 2" retroreflective strips surround the perimeter of the SMV triangle

Fire Apparatus Regulation – NFPA 1901



Benefits of application:

1. Enhances the visibility of emergency response vehicles that work in or near moving traffic
2. Commands the attention of the motoring public more than horizontal stripes
3. The chevron pattern is an inverted "V", in compliance with the MUTCD (Manual On Uniform Traffic Control Devices)
4. More effectively warns oncoming motorists allowing more reaction time to maneuver



Reflective Solutions

For Traffic Signs and Work Zones

Technology, quality & service

Engineered to Save Lives™

As one of the world's leading manufacturers of reflective materials, the ORAFOL Group earned its reputation for global excellence through its dedication to ingenuity, quality and service. When it comes to supplying products for the traffic control industry, we work each day with a dedication grounded by our knowledge that the quality of our products helps to save lives.

ORAFOL's dedication to quality and service is reflected in every aspect of the business. From research and development to product delivery and customer service, our commitment to excellence through people, processes and technology is unparalleled.

At the core of our excellence is our dedicated team. Around the globe, ORAFOL employees represent the industry's brightest and most innovative experts who are committed to focusing on customer needs with a stringent dedication to continuous improvement and process control.

Within a supportive environment, employees are encouraged to partner with customers to develop and produce the most innovative solutions to meet customer needs, whether they are standard or customized products.

Our teams are supported with a framework of an integrated management system which combines both ISO 9001 and ISO 14001 to ensure consistency of process and quality, while protecting our environment.

Of course, people and processes must be supported by the most advanced tools. Our investments in the latest facilities, technology for research and development, custom manufacturing equipment, process control and delivery logistics systems ensure our status as a market leader.

A commitment to excellence extends beyond the walls of our facilities. Our suppliers are a critical component of our ability to provide our customers with exactly what they need and when they need it. All suppliers are required to adhere to ORAFOL's strict standards for perfect quality and on-time delivery.





ORAFOL products are sold in more than 100 countries on all continents worldwide and the company is an internationally renowned and trusted partner to customers worldwide.



A dedication to quality is a source of pride for all of us at ORAFOL and it is a key factor in our continued growth and success. The knowledge that some of our products are used to protect people's safety motivates us every day to strive for perfect quality.

Dr. Holger Loclair, MD ORAFOL Europe GmbH

From research, product development, testing, manufacturing and logistics, we ensure that we exceed customer expectations for the most advanced, highest quality reflective traffic control products that are delivered when they are needed.

All ORAFOL traffic safety products are manufactured to meet or exceed applicable performance and safety standards around the world. ORAFOL products are sold to more than 100 countries on all continents worldwide and the company is an internationally renowned and trusted partner to customers worldwide.



Our teams are supported with a framework of an integrated management system which combines both ISO 9001 and ISO 14001 to ensure consistency of process and quality, while protecting our environment.



lvd.



*Photo shows a typical application example

“

ORAFOL is your full range supplier of reflective materials for traffic signs.



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TRAFFIC SIGNS

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*Photo shows a typical application example

TRAFFIC SIGNS

Around the globe, permanent roadway signs are critical to facilitating the smooth and safe flow of traffic. Performance and legibility are a must for drivers. Durability, value, adherence to standards and ease of application are a must for your business.

ORAFOL offers a full range of materials, colors and sizes to fit your sign making needs. Our high quality retroreflective materials are specifically designed to withstand the toughest roadway environments and extreme elements. In fact, we back our ORALITE® sign products with up to a ten year warranty. Our materials comply with all applicable international standards, are easy to print and apply, UV-resistant and available in standard roll sizes.



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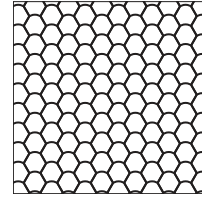
ORALITE® 5900 / 5910

High Intensity Prismatic (HIP) Grade

For long-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 9-mil
- Clear, solvent polyacrylate, permanent adhesive
- Excellent UV and screen printability
- High performance acrylic film
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type IV, Class 1 retroreflective sheeting



Product Identification pattern for ORALITE® 5900/5910

Recommended lettering film: ORALITE® 5081

Recommended transparent overlay film: ORALITE® 5061

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths* | Available Lengths* | Outdoor Durability |
|---------------|---|-------------------------------|-------------------|--------------------|--------------------|
| ORALITE® 5900 | white, yellow, orange, red, green, blue, brown | screen printing & UV printing | 24", 48" | 150' (50-yard) | 10 years |
| ORALITE® 5910 | white, yellow, orange, red, green, blue, brown (with watermark) | screen printing & UV printing | 24", 48" | 150' (50-yard) | 10 years |

*Custom sizes available. Please contact your local sales representative for more information.

Please Note: ORALITE® 5900 is without a watermark and ORALITE® 5910 is supplied with a watermark.

This product is exclusively intended for adhesion to flat surfaces.



*Photos show typical application examples for ORALITE® 5900/5910

ORALITE® 5800 / 5810

High Intensity Grade

For long-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 10-mil
- Clear, solvent-based, permanent adhesive
- Excellent printability
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanized steel)
- High performance acrylate film
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type III, Class 1 retroreflective sheeting

Recommended lettering film: ORALITE® 5081

Recommended screen printing ink: ORALITE® 5018

Recommended transparent overlay film: ORALITE® 5061

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|--|---------------------|-----------------------------------|---------------------------------|--------------------|
| ORALITE® 5800 | white, yellow, orange, red, green, blue, brown | screen printing | 15" (punched), 24", 30", 36", 48" | 30' (10-yard) 150' (50-yard) | 10 years |
| ORALITE® 5810 | white, yellow, orange, red, green, blue, brown <i>(with watermark)</i> | screen printing | 24", 48" | 150' (50-yard) | 10 years |

Please Note: ORALITE® 5800 is without a watermark and ORALITE® 5810 is supplied with a watermark. This product is exclusively intended for adhesion to flat surfaces.

ORALITE® 5700 / 5710

Engineer Grade Premium

For long-term outdoor applications

ORALITE® 5500 / 5510

Engineer Grade

For long-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 5700/5710 - 6-mil; 5500/5510 - 5-mil
- Clear, solvent-based, permanent adhesive
- Excellent screen printability
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanized steel)
- Alkyd resin film
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type I, Class 1 retroreflective sheeting

Recommended lettering film: ORALITE® 5071

Recommended screen printing ink: ORALITE® 5018

Recommended transparent overlay film: ORALITE® 5051

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|---|------------------------------------|------------------------------|---------------------------------|--------------------|
| ORALITE® 5700 | white, yellow, orange, red, green, blue, brown, black | screen printing & thermal transfer | 15" (punched), 24", 30", 48" | 30' (10-yard) 150' (50-yard) | 7 years |
| ORALITE® 5710 | white, yellow, orange, red, green, blue, brown <i>(with watermark)</i> | screen printing | 24", 30", 36" 48" | 150' (50-yard) | 7 years |
| ORALITE® 5500 | white, yellow, orange, red, *ruby red, green, *light blue, blue, brown, black | screen printing | 15" (punched), 24", 30", 48" | 30' (10-yard) 150' (50-yard) | 7 years |
| ORALITE® 5510 | white, yellow, orange, red, green, blue, brown <i>(with watermark)</i> | screen printing | 24", 30", 36" 48" | 150' (50-yard) | 7 years |

Please Note: ORALITE® 5700 & 5500 are without a watermark and ORALITE® 5710 & 5510 are supplied with a watermark. This product is exclusively intended for adhesion to flat surfaces.

* Limited quantities

ORALITE® 5400 / 5300

Commercial Grade

For medium-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 3.5-mil
- Clear, solvent-based, permanent adhesive
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanized steel)
- 5400 - PVC solvent inkjet printable film
- 5300 - Alkyd resin film
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type I, Class 1 retroreflective sheeting

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|---|-----------------------------------|------------------------------|---------------------------------|--------------------|
| ORALITE® 5400 | white, yellow, orange, red, green, blue | inkjet printing & screen printing | 24", 48" | 150' (50-yard) | 4 years |
| ORALITE® 5300 | white, yellow, orange, red, green, blue | screen printing | 15" (punched), 24", 30", 48" | 150' (50-yard) 30' (10-yard) | 7 years |

Please Note: This product is exclusively intended for adhesion to flat surfaces.

ORALITE® 5200

Economy Grade

For sign boards, lettering, markings, symbols and graphic applications

Product Features and Benefits:

- Weatherproof
- 3.5-mil
- Clear, solvent-based, permanent adhesive
- Excellent solvent inkjet and screen printability
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanized steel)
- Highly flexible cast PVC polymer film

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|---|-----------------------------------|------------------|-------------------|--------------------|
| ORALITE® 5200 | white, yellow, orange, red, green, blue | screen printing & inkjet printing | 24", 48" | 150' (50-yard) | 3 years |

Please Note: This product is exclusively intended for adhesion to flat surfaces.



*Photo shows a typical application example for ORALITE® 5800/5810

ACCESSORIES

ORALITE® 5081 / 5071 Lettering Films

| Product | Available Colors | Recommended for use on | Available Widths | Available Lengths | Outdoor Durability |
|---------------|---|------------------------------------|------------------|---------------------------------|--------------------|
| ORALITE® 5081 | black; gloss and matte <i>(with watermark)</i> | ORALITE® 5900, 5910, 5800, 5860 | 48" | 150' (50-yard) | 10 years |
| ORALITE® 5071 | black; gloss and matte | ORALITE® 5700, 5500 | 24", 48" | 150' (50-yard) 30' (10-yard) | 7 years |

Please Note: ORALITE® 5071 is without a watermark and ORALITE® 5081 is supplied with a watermark.
ORALITE® 5081 has been approved for the manufacture of traffic control signs carrying the RAL quality label.

ORALITE® 5061 / 5051 Transparent Overlay Films

| Product | Available Colors | Recommended for use on | Available Widths | Available Lengths | Outdoor Durability |
|---------------|--|------------------------------------|------------------|---------------------------------|--------------------|
| ORALITE® 5061 | clear, yellow, orange, red, green, blue, brown | ORALITE® 5900, 5910, 5800, 5860 | 24", 48" | 150' (50-yard) 30' (10-yard) | 10 years |
| ORALITE® 5051 | yellow, red, blue <i>(other colors on request)</i> | ORALITE® 5700, 5710, 5510 | 24", 48" | 150' (50-yard) | 7 years |

Please Note: Ensures compliance with the minimum reflective values and color coordinates of EN 12899-1 (RA2, B).



Other sign making accessories

| Product | Type | Description | Available Widths | Available Lengths | Outdoor Durability |
|--------------------------------|---------------------|--|-----------------------------------|---------------------------------|--------------------|
| ORALITE® 5090 | anti-dew film | Self-adhesive overlay film that enhances the performance of signs under critical weather conditions. Its unique coating prevents the formation of water droplets on the surface of the sign face allowing undisturbed retroreflection of the underlying reflective film, even in wet conditions. | 48" | 150' (50-yard) | 5 years |
| ORALITE® 5095 | anti-graffiti film | Self-adhesive transparent fluoropolymer film developed to protect printed and unprinted ORALITE® reflective films against graffiti. | 48" | 150' (50-yard) | 10 years |
| ORALITE® 5018 | screen printing ink | One-component screen printing ink, suitable for printing on all ORALITE® reflective films. 7 colors available | N/A | | - |
| ORATAPE® MT95 | application tape | Highly transparent polyethylene-based transfer film. | 14", 24", 30", 40", 48" | 300' (100-yard) | - |
| ORATAPE® MT72 ORATAPE® LT72 | application tape | Semi-transparent transfer paper. | 14", 24", 30", 40", 48" | 300' (100-yard) | - |
| ORAGUARD® 290 | laminating film | 2 mil, premium cast laminating film for long-term protection of digital print applications | 30", 36", 40", 50", 54", 60" | 150' (50-yard) | 8 years |
| ORAGUARD® 290GF | laminating film | 2 mil, optically clear premium cast PVC laminating film for long-term outdoor protection of digital print applications | 24", 30", 36", 40", 50", 54", 60" | 150' (50-yard) 30' (10-yard) | 8 years |
| ORAGUARD® 293 | laminating film | 1 mil, ultra flexible cast PVC laminating film for protection of large format digital prints | 30", 36", 40", 50", 54", 60" | 150' (50-yard) | 8 years |

DID YOU KNOW?

We back our ORALITE® sign products with up to a 10 year warranty!



*Application example for ORATAPE® MT72/LT72



*Photo shows a typical application example for ORALITE® 5081/5071



*Photo shows a typical application example

WORK ZONE

Work zone signs and channelizing devices not only help traffic avoid hazards, but also protect roadway workers. That's why durability is critical – they need to endure the rigors of the roadway and the rough environment of frequent set-up and tear-down, yet maintain visibility performance for safety. ORAFOL offers a complete product range for construction zone markings. This range includes all grades from prismatic to glass bead materials.

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ORALITE[®]
Reflexite[®]

ORALITE® 5930 / 5931

High Intensity Prismatic (HIP) Construction Grade

For short and medium-term outdoor applications

Product Features and Benefits:

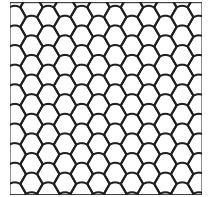
- Weatherproof
- 18-mil
- Clear, permanent adhesive
- Excellent screen and UV printability
- Excellent adhesion to low energy plastics
- Surface of acrylic film
- Meets ASTM D 4956 specifications for Type IV, Class 1 retroreflective sheeting

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths* | Available Lengths* | Outdoor Durability |
|---------------|--|-------------------------------|-------------------------|--------------------|--------------------|
| ORALITE® 5930 | white, yellow, fluorescent orange | screen printing & UV printing | 18", 24", 30", 36", 48" | 150' (50-yard) | 5 years |
| | fluorescent yellow-green | | 12", 36", 48" | | |
| ORALITE® 5931 | white/red, white/orange, yellow/red, yellow/black, fluorescent yellow-green/red, fluorescent orange/black <i>(with chevron pattern)</i> | screen printing & UV printing | 8", 12" | *150' (50-yard) | 5 years |

Please Note: This product is exclusively intended for adhesion to flat surfaces.

*Custom sizes available. Please contact your local sales representative for more information.



Product Identification pattern for ORALITE® 5930/5931



*Photo shows typical application examples for ORALITE® 5931

ORALITE® 5830 / 5831

High Intensity Construction Grade

For short and medium-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 8.25-mil
- Clear, permanent adhesive
- Excellent screen printability
- Excellent adhesion to low energy plastics
- Meets ASTM D 4956 specifications for Type III, Class 1 retroreflective sheeting

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths* | Available Lengths* | Outdoor Durability |
|---------------|--|---------------------|--------------------|--------------------|--------------------|
| ORALITE® 5830 | white, yellow, orange, red, green, blue | screen printing | 24", 30", 36", 48" | 150' (50-yard) | 5 years |
| ORALITE® 5831 | white/red, white/orange, yellow/red, yellow/black (with chevron pattern) | screen printing | 10" | 150' (50-yard) | 5 years |

*Custom sizes available. Please contact your local sales representative for more information.

ORALITE® 5430 / 5431

Construction Grade

For short and medium-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 3.5-mil
- Excellent adhesion to low energy plastics
- With watermark and a surface of cast PVC copolymer
- Excellent corrosion and solvent resistance
- Designed for low energy work zone traffic control devices

| Product | Available Colors | Print Compatibility | Available Widths* | Available Lengths* | Outdoor Durability |
|---------------|--|-------------------------|--------------------|--------------------|--------------------|
| ORALITE® 5430 | white, yellow, orange, red, green, blue | solvent inkjet printing | 24", 30", 36", 48" | 150' (50-yard) | 4 years |
| ORALITE® 5431 | white/red, yellow/red, yellow/black (with chevron pattern) | solvent inkjet printing | 10" | 150' (50-yard) | 4 years |

*Custom sizes available. Please contact your local sales representative for more information.

ORALITE® 5370

Engineer Construction Grade

For work zone sign sheeting

Product Features and Benefits:

- Weatherproof
- 3.5-mil
- Clear, solvent-based, permanent adhesive
- Excellent printability with solvent screen print inks
- Excellent adhesion to sign substrate materials (e.g. aluminum and coroplast)
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type I, Class 1 retroreflective sheeting

Recommended screen printing ink: ORALITE® 5018

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|------------------|---------------------|------------------|-------------------|--------------------|
| ORALITE® 5370 | white | screen printing | 24", 36", 48" | 150' (50-yard) | 3 years |
| | yellow | | 48" | | |
| | orange | | 36", 48" | | |

Please Note: This product is exclusively intended for adhesion to flat surfaces.

ORALITE® 5270 / 5271

Engineer Construction Grade

For the construction work zone

Product Features and Benefits:

- Weatherproof
- Aggressive pressure sensitive adhesive
- Excellent adhesion to low surface energy plastics
- Pre-printed diagonal stripe available in left and right hand directions
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type I, Class 1 retroreflective sheeting

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|-----------------------|---------------------|------------------|-------------------|--------------------|
| ORALITE® 5270 | white, yellow, orange | N/A | 4", 6" | 150' (50-yard) | 3 years |
| ORALITE® 5271 | white /red | N/A | 7.75" | 150' (50-yard) | 3 years |
| | white /orange | | 7.75", 11.75" | | |



*Photo shows typical application examples for ORALITE® 5370 and ORALITE® 5270/5271



FLEXIBLE SIGNS & CONES

Reflexite® AR1000 Delineation Sheeting

For use in long-term delineation and work zones on barrier, guard rail and roadside post applications

Product Features and Benefits:

- Weatherproof
- Aggressive pressure sensitive adhesive
- Excellent adhesion to metal, painted metal, urethane and structural plastics
- Impact and abrasion resistant surface with mono-layer construction
- No edge sealing required
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type V, Class 1 retroreflective sheeting

| Product | Available Colors | Print Compatibility | Available Widths* | Available Lengths | Outdoor Durability |
|-------------------|---------------------------------|---------------------|-------------------|-------------------|--------------------|
| Reflexite® AR1000 | white, yellow, red, green, blue | N/A | 3", 4", 6" | 150' (50-yard) | 5 years |

*Custom widths available upon request



*Photo shows a typical application example for Reflexite® AR1000



Reflexite® Pedestrian Crossing Material

Flexible Applications

For use on in-street pedestrian crossing signs

Product Features and Benefits:

- Weatherproof
- Aggressive pressure sensitive adhesive
- Excellent printability with solvent screen print inks
- Excellent adhesion to low energy plastics
- Flexible, impact resistant surface with mono-layer construction, no edge sealing required
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type III, Class 1 retroreflective sheeting

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|--------------------------------|------------------|---------------------|------------------|-------------------|--------------------|
| Reflexite® Pedestrian Crossing | fluorescent lime | screen printing | 30" | 150' (50-yard) | 3 years |

Reflexite® Roll Up Sign Blanks

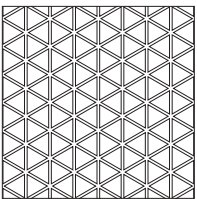
Flexible Applications

For traffic control signing in temporary work zones, utility, and incident management applications

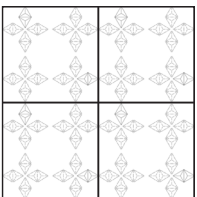
Product Features and Benefits:

- Weatherproof
- Lightweight construction provides ergonomic and economic solutions over rigid signing
- No sharp edges to cut hands
- Easy to set up and take down within the work zone
- Excellent printability with solvent screen print inks
- Fabric reinforced microprismatic sheeting with smooth sealed outer surface and ESP (Enhanced Surface Preparation) coating to keep sign surface cleaner in harsh environments
- Meets requirements of MUTCD
- Meets ASTM D 4956 specifications for Type VI, Class 5 retroreflective sheeting

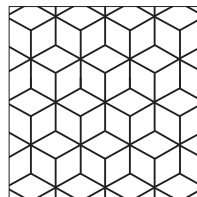
| Product | Available Colors | Print Compatibility | Available Sizes | Outdoor Durability |
|---|---|---------------------|------------------------|--------------------|
| Reflexite® Marathon Roll Up Sign Blanks | white, fluorescent orange, fluorescent yellow-green | screen printing | 36" x 36" 48" x 48" | 3 years |
| Reflexite® Superbright® Roll Up Sign Blanks | white, yellow, fluorescent orange, fluorescent pink | screen printing | 36" x 36" 48" x 48" | 3 years |



Product Identification pattern for Reflexite® Pedestrian Crossing Material



Product Identification pattern for Reflexite® Superbright® Roll Up Sign Blanks



Product Identification pattern for Reflexite® Marathon Roll Up Sign Blanks



*Photo shows a typical application example for Reflexite® Pedestrian Crossing Material

Reflexite® Cone Collars

Flexible Applications

For use in work zones on traffic cones



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Product Features and Benefits:

- Weatherproof
- Meets requirements of MUTCD

C85 Peel & Stick -

- Excellent adhesion to PVC
- Flexible, impact resistant surface with mono-layer construction, no edge sealing required
- Meets ASTM D 4956 specifications for Type III and IV, Class 1 retroreflective sheeting

Cone Collar Slip On -

- Excellent adhesion to PVC when bonded with Reflexite® Cone Stik adhesive
- High frequency welded to a soft white vinyl backing
- Meets ASTM D 4956 specifications for Type III, IV and VI, Class 5 retroreflective sheeting

| Product | Available Colors | Print Compatibility | Available Sizes | Outdoor Durability |
|--------------------------------|------------------|---------------------|--------------------|--------------------|
| Reflexite® C85 Peel & Stick | white | N/A | 6" upper, 4" lower | 3 years |
| Reflexite® Cone Collar Slip On | white | N/A | 6" upper, 4" lower | 3 years |

Reflexite® Channelizer Tape

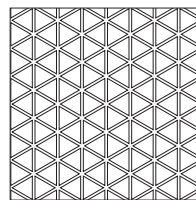
Flexible Applications

For use in construction work zones on drums, cones, tubes, posts and vertical panels

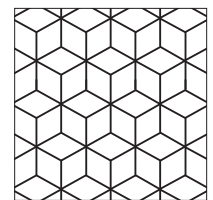
Product Features and Benefits:

- Weatherproof
- Unique construction allows material to expand and contract with drum eliminating wrinkling and bubbling
- Highly impact resistant
- Brightness designed for long range visibility (beneficial for early detection)
- Excellent adhesion to low energy plastics
- Flexible surface with mono-layer construction, no edge sealing required
- Meets requirements of MUTCD
- Resilience meets ASTM D 4956 specifications for Type IV retroreflective sheeting
- High Impact meets ASTM D 4956 specifications for Type III and IV, Class 1 retroreflective sheeting

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|------------------------|---------------------------|---------------------|------------------|-------------------|--------------------|
| Reflexite® High Impact | white, yellow, orange | N/A | 3", 4", 6" | 150' (50-yard) | 3 years |
| Reflexite® Resilience | white, fluorescent orange | N/A | 4", 6" | 150' (50-yard) | 3 years |



Product Identification pattern for Reflexite® High Impact Drum Sheeting



Product Identification pattern for Reflexite® Resilience Drum Sheeting

*Application example for Reflexite® Channelizer Tape



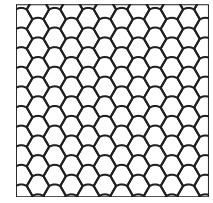
CONTAINERS & DUMPSTERS

ORALITE® 5951 High Intensity Prismatic (HIP) Container Marking Grade

Flexible high performance prismatic film

Product Features and Benefits:

- Weatherproof
- Preprinted in chevron pattern
- Excellent adhesion to painted surfaces as well as to low energy plastics
- Flexible acrylic film
- High reflective flexible prismatic film



Product Identification pattern for ORALITE® 5951 & 5851

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|------------------|---------------------|------------------|-------------------|--------------------|
| ORALITE® 5951 | white/red | N/A | 5.5" | 28" | 5 years |

Please Note: Depending on the stress the film is subjected to, full functionality is guaranteed for a period of three years.

ORALITE® 5851 High Intensity Container Marking Grade

Flexible glass bead construction



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Product Features and Benefits:

- Weatherproof
- Flexible reflective film preprinted in chevron pattern
- Excellent adhesion to painted surfaces as well as to low energy plastics
- Flexible acrylic film

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|------------------|---------------------|------------------|-------------------|--------------------|
| ORALITE® 5851 | white/red | N/A | 5.5" | 28" | 5 years |

Please Note: Depending on the stress the film is subjected to, full functionality is guaranteed for a period of five years.

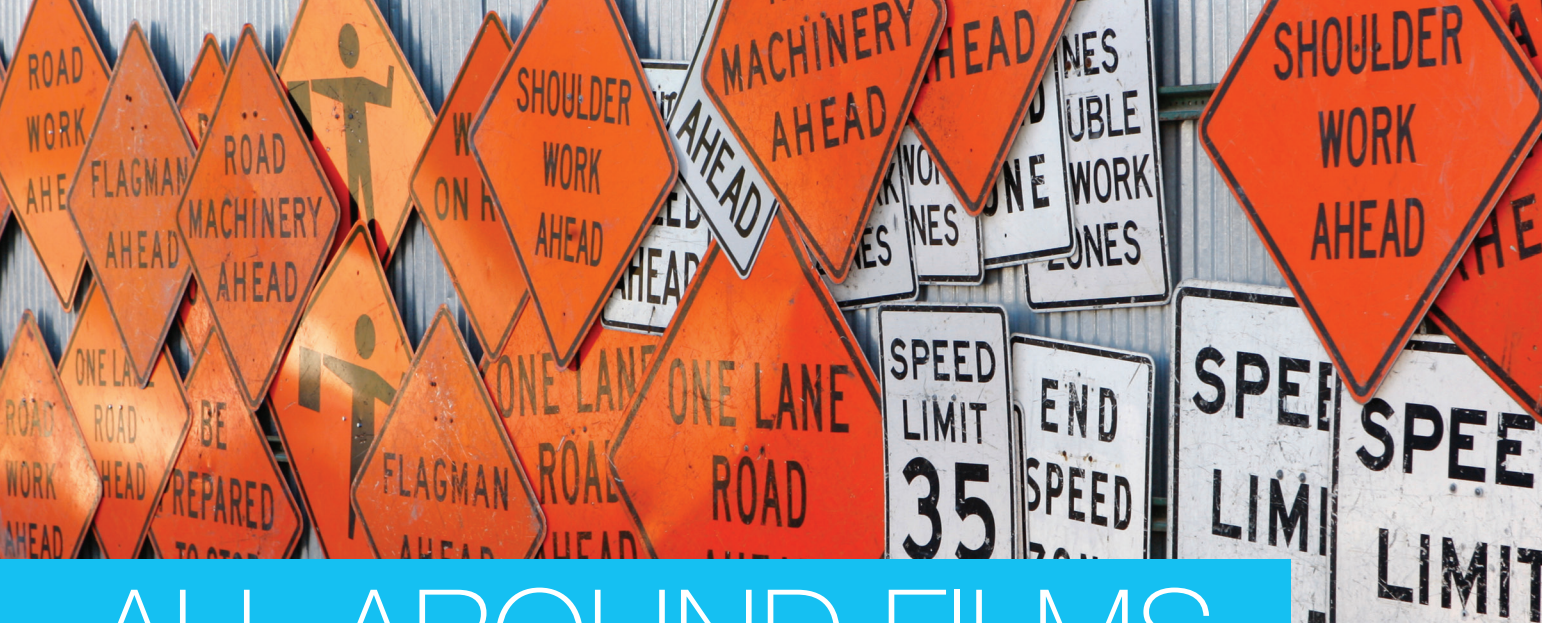


Photo shows a typical application example

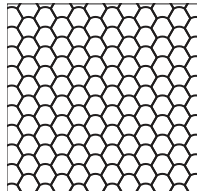
ALL AROUND FILMS

ORALITE® 5960 High Intensity Prismatic (HIP) Construction Grade

For short and medium-term outdoor applications

Product Features and Benefits:

- Weatherproof
- 9-mil
- Excellent UV and screen printability
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanised steel)
- Acrylic film
- High reflective prismatic film



Product Identification pattern for ORALITE® 5960 & 5860

Recommended lettering film: ORALITE® 5081

Recommended transparent overlay film: ORALITE® 5061

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|--|-------------------------------|------------------|-------------------|--------------------|
| ORALITE® 5960 | white, yellow, orange, red, green, blue, brown | screen printing & UV printing | 24", 48" | 150' (50-yard) | 5 years |

Please Note: This product is exclusively intended for adhesion to flat surfaces.

ORALITE® 5860 High Intensity Construction Grade

For short and medium-term outdoor applications



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Product Features and Benefits:

- Weatherproof
- 8.25-mil
- Excellent screen printability
- Excellent adhesion to metallic surfaces (e.g. aluminum and galvanised steel)
- Surface of modified acrylic film

Recommended lettering film: ORALITE® 5081

Recommended transparent overlay film: ORALITE® 5061

| Product | Available Colors | Print Compatibility | Available Widths | Available Lengths | Outdoor Durability |
|---------------|---|---------------------|--------------------|-------------------|--------------------|
| ORALITE® 5860 | white, yellow, orange, red, green, blue | screen printing | 24", 30", 36", 48" | 150' (50-yard) | 5 years |

Please Note: This product is exclusively intended for adhesion to flat surfaces.



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Visibility can save your life if you work within a construction zone. ORAFOL is your full range supplier of construction zone reflectors.



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Product Overview

| Type | Product | Grade | Print Compatibility | Outdoor Durability |
|--------------------|---------------|--|------------------------------------|--------------------|
| TRAFFIC SIGNS | ORALITE® 5910 | High Intensity Prismatic (H-IP) Grade (with watermark) | screen printing & UV printing | 10 years |
| | ORALITE® 5900 | High Intensity Prismatic (H-IP) Grade | screen printing & UV printing | 10 years |
| | ORALITE® 5810 | High Intensity Grade (with watermark) | screen printing | 10 years |
| | ORALITE® 5800 | High Intensity Grade | screen printing | 10 years |
| | ORALITE® 5710 | Engineer Grade Premium (with watermark) | screen printing | 7 years |
| | ORALITE® 5700 | Engineer Grade Premium | screen printing & thermal transfer | 7 years |
| | ORALITE® 5510 | Engineer Grade Standard (with watermark) | screen printing | 7 years |
| | ORALITE® 5500 | Engineer Grade Standard | screen printing | 7 years |
| | ORALITE® 5400 | Commercial Grade | screen printing & inkjet printing | 4 years |
| | ORALITE® 5300 | Commercial Grade | screen printing | 7 years |
| | ORALITE® 5200 | Economy Grade | screen printing & inkjet printing | 3 years |
| | ORALITE® 5095 | Anti-Graffiti Film | N/A | 10 years |
| | ORALITE® 5090 | Anti-Dew Film | N/A | 5 years |
| | ORALITE® 5081 | Lettering Film (with watermark) | N/A | 10 years |
| | ORALITE® 5071 | Lettering Film | N/A | 7 years |
| | ACCESSORIES | ORALITE® 5061 | Transparent Overlay Film | N/A |
| ORALITE® 5051 | | Transparent Overlay Film | N/A | 7 years |
| ORALITE® 5018 | | Screen Printing Ink | N/A | N/A |
| ORATAPE® MT95 | | Application Tape | N/A | N/A |
| ORATAPE® MT72/LT72 | | Application Tape | N/A | N/A |

| Available Colors* | | | | | | | | | | | | | | | | | | | |
|-------------------|---------------|---------------|------------|--------------|-------------|----------------|--------------|-----------|-----------|------------------------------|------------------------|---------------------|---------------------|---------------|--------------------|----------------|--------------------|----------------------------------|------------------------------|
| 010 white*** | 020 yellow*** | 035 orange*** | 030 red*** | 364 ruby red | 050 blue*** | 053 light blue | 060 green*** | 080 brown | 070 black | 029 fluorescent yellow-green | 038 fluorescent orange | 04 fluorescent lime | 03 fluorescent pink | 010 white/red | 010V* white/orange | 020 yellow/red | 020V* yellow/black | 029 fluorescent yellow-green/red | 038 fluorescent orange/black |
| | | | | | | | | | | | | | | | | | | | |

