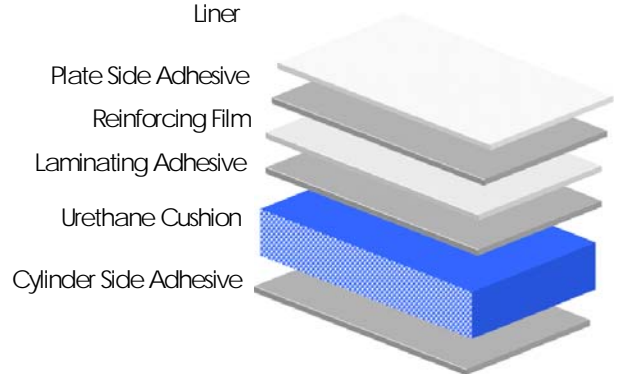


## R/bak® PSA COMPRESSIBLE PRINTING MATERIALS

### Proven Open-Cell Urethane Technology

- Improved Print Quality
  - Lower Dot Gain & High Solid Ink Densities
- Fewer Press Adjustments
  - Maintains Impression From Beginning to End
- Helps Eliminate Problems on Press
  - Easier to Print on Rough Surfaces
- Faster Press Speeds
  - Maintains Solid Ink Densities at High Speeds

### Product Cross Section



### High Performance Adhesive System Designed for Specific Applications

	LT Low-Tack Adhesive	MT Medium-Tack Adhesive	HT High-Tack Adhesive
<b>Plate Side Adhesive</b>	For Photopolymer Plates and allows easy repositioning and removal from the cushion	Firmly grips Photopolymer Plates while allowing easy demount	Aggressive adhesive for mounting Rubber or thick, hard Photopolymer Plates
<b>Cylinder</b>	Suited for presses with large diameter cylinders - wide web applications	Best used on smaller diameter cylinders with plates exhibiting edge lift	Caution - mounting plate side adhesive to cylinder will result in difficult demount or delamination
<b>Thickness Range</b>	.020" - .080" (.51mm - 2.03mm)	.020" - .060" (.51 mm - 1.52 mm)	.020" - .080" (.51mm - 2.03mm)
<b>Color Code</b>	Gray	Blue	Black

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## General Tape Properties

<b>Foam Type</b>	Open Cell Urethane
<b>Compressibility @ 25%</b>	41 psi (2.88kg/cm <sup>2</sup> )
<b>Adhesive Type</b>	Rubber Based Pressure Sensitive Adhesive
<b>Plate Side Adhesive Tack</b>	LT (Gray): for photopolymer plates
	MT (Blue): modified for firmly holding photopolymer plates
	HT (Black): for mounting rubber or thick photopolymer plates
<b>Cylinder Side Adhesive</b>	Designed for good bond to cylinder and easy to remove when the job is finished
<b>Release Liner</b>	0.006" (0.15mm) White Polycoated Paper
<b>Constant Use Temp (Max.)</b>	150°F (66°C)
<b>Solvent Resistance</b>	Good with normal flexo cleaning solutions. Use with Ketones, esters, and chlorinated hydrocarbons is not recommended
<b>Shelf Life</b>	12 months from date of receipt by customer when stored in original carton at 70°F(21°C) and 50% relative humidity
<b>Thickness Tolerance</b>	+/-0.003" (0.076 mm) within a roll
<b>LT = Low Tack, MT = Mid Tack, HT = High Tack</b>	



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**ROGERS**  
CORPORATION

R/bak<sup>®</sup> Cushion Mounting Materials

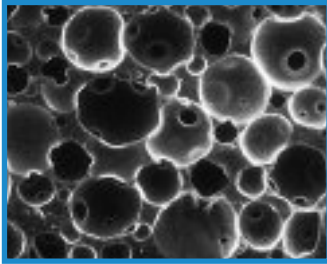
# The Leaders In Corrugated Cushion

The world runs better with Rogers.<sup>®</sup>

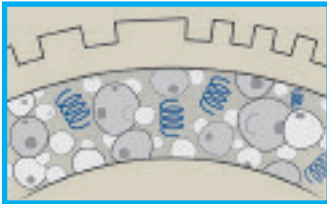
# The Science Behind the Art of Better Flexographic Results

The big quality difference between R/bak® Cushion Mounting Materials and other cushions can best be demonstrated by taking a microscopic look inside the foam. Open-cell urethane recovers over and over again so that the material provides a consistent level of cushioning no matter how many times they are compressed. Closed-cell polyethylene breaks down in use and do not recover, which results in loss of ink density, slower press speeds, more adjustments and added costs.

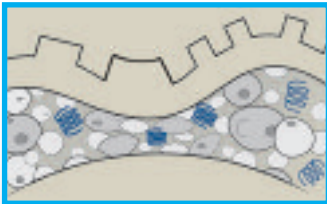
## Open Cell



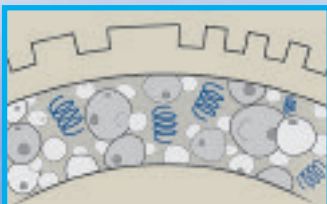
Open-cell urethane structure (magnified 100 times) naturally recovers to deliver consistent results.



R/bak open-cell urethane foam

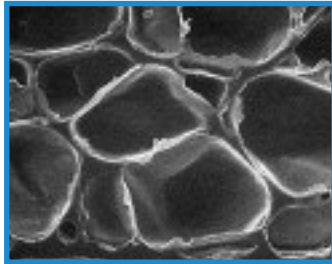


Open-cell structure "springs" recover after compression



Original performance

## Closed Cell



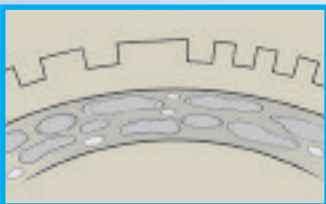
Closed-cell polyethylene's structure (magnified 100 times) changes with repeated use and requires repeated adjustments.



Closed-cell polyethylene foam



"Balloons" or closed-cell structure ruptures under over-implosion



Loss of impression force and reduced resiliency

# Features & Benefits

## Higher Print Quality

R/bak materials provide a high degree of surface conformity with minimal increase in plate pressure. The result is lower dot gain, cleaner reverse print, improved registration, fewer dropouts and higher quality impressions at increased press speeds.

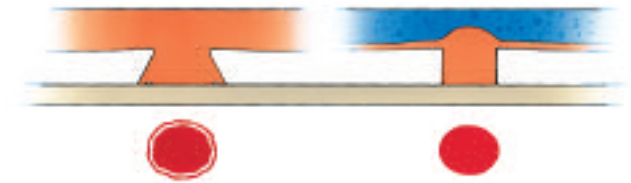


Thick plate

Thin plate with R/bak Cushion

## Reduces Dot Gain

Utilizing R/bak Cushions behind the printing plate allows the pressure applied to the plate to be absorbed by the cushion rather than the corrugated surface, thus reducing physical dot gain.

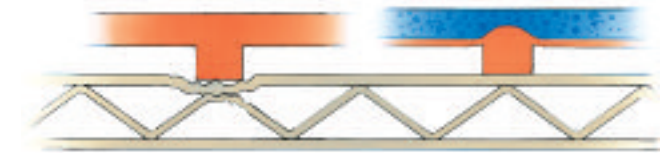


Thick plate

Thin plate with R/bak Cushion

## Eliminates Board Crush

The R/bak Cushion Mounting System provides wide process latitude without damage to the corrugated board, allowing for a finished product that truly stands out.



Thick plate

Thin plate with R/bak Cushion

## Improved Handling

Lighter thin plates with shorter processing times.

## Increased Press Speeds without Bounce

Eliminating bounce allows increased throughput and ends double strikes.

## Longer Plate Life

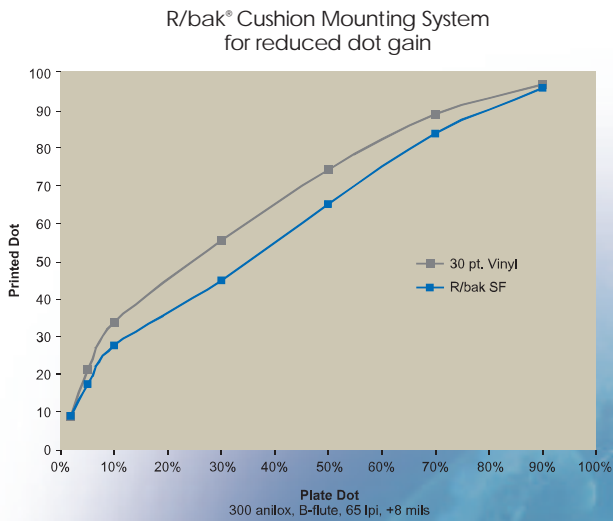
With less than 2% compression set, R/bak materials reduce plate wear by continually absorbing impact.

## Reduced Costs/Improved Profits

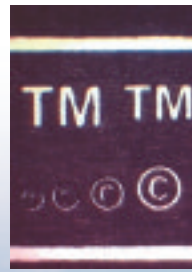
Less waste and lower component wear mean more impressions and lower costs for you.

# The Technology Behind the Performance

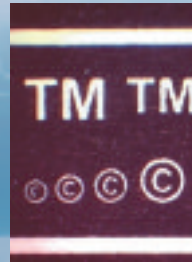
## Reduced Dot Gain



## Improves Reverse Printing

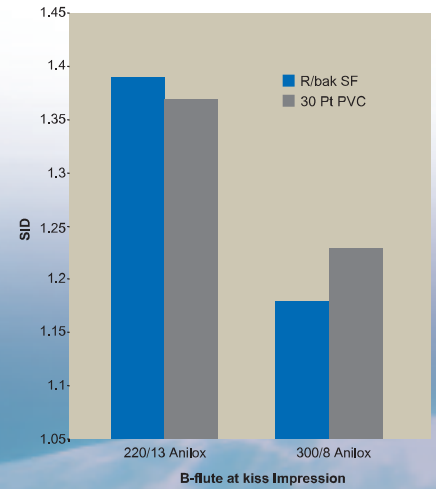


Reverse features using 30 pt PVC and no cushion



Reverse features using R/bak SF

## Comparable Solid Ink Density With Standard Vinyl Mounts



## Product Offering

Product	R/bak SF	R/bak SS	R/bak U	R/bak U1A
Application	General purpose cushion for solids, lines and process printing on corrugated substrates	Soft modulus cushion, recommended for fine line multi color process printing on corrugated substrates	Designed without a support/mount substrate, recommended for cylinder build-up, spot cushioning and spot coating	Unsupported cushion foam with a single sided acrylic adhesive for corrugated printing applications
Color	Blue	Black	Blue	Blue
Foam Type	Open-Cell Microcellular Urethane	Open-Cell Microcellular Urethane	Open-Cell Microcellular Urethane	Open-Cell Microcellular Urethane
Carrier	.010" PET (.254 mm)	.010" PET (.254 mm)	NA	NA
Thickness	0.030" to 0.180" (0.76 mm to 4.52 mm)	0.080" to 0.120" (2.03 mm to 3.05 mm)	0.028" to 0.120" (0.71 mm to 3.05 mm)	0.040" to 0.100" (1.02 mm to 2.54 mm)
Typical Compressibility @25%	16.8 psi (1.18 kg/cm <sup>2</sup> )	10.6 psi (.745 kg/cm <sup>2</sup> )	15.7 psi (1.10 kg/cm <sup>2</sup> )	15.7 psi (1.10 kg/cm <sup>2</sup> )

Thicknesses are listed as nominal thickness for printing operations.

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### Plate/Cushion Thickness Guide

The table below contains recommended combinations of R/bak compressible cushion products to common plate thicknesses to fit the more widely used flexo press undercuts.

	Undercut* Inch (mm)	Plate Inch (mm)	R/bak SF, SS Inch (mm)
Corrugated	0.280" (7.11mm)	0.155" (3.94 mm)	0.120" (3.05 mm)
	0.280" (7.11mm)	0.125" (3.18 mm)	0.150" (3.81 mm)
	0.280" (7.11mm)	0.112" (2.84 mm)	0.170" (4.32 mm)
	0.185" (4.70 mm)	0.155" (3.94 mm)	0.030" (0.76 mm)
	0.185" (4.70 mm)	0.125" (3.18 mm)	0.060" (1.52 mm)
	0.185" (4.70 mm)	0.112" (2.84 mm)	0.070" (1.78 mm)

\* Undercuts listed in the table are the commonly accepted designations. Refer to your OEM manufacturer for actual undercut specifications on your equipment.

For more information, visit [www.rogerscorp.com/corrugated](http://www.rogerscorp.com/corrugated) or contact a distributor near you.



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For a lasting impression.



**THE NATURE OF  
LONG LASTING  
IMPRESSIONS**

**R/bak<sup>®</sup> SA 2100**  
Soft Combination

**R/bak<sup>®</sup> SA 2300**  
General Purpose

**R/bak<sup>®</sup> SA 2500**  
Firm Combination

25 & 15 mil tapes for combination jobs with demanding process & screens

20 & 15 mil tapes for combination jobs with screen, line and solid work

20 mil tapes for line and solid work with darker screens

**Cushion Mounting Tapes**

## In the Long Run, the Difference is the Cushion.

Speed, quality and price – you know that's what your customers look for from a flexographic print run. And one of the most important factors in delivering all three is often overlooked: the cushion mounting tape.

### A Unique Open-Cell Urethane Cushion

The key is our unique open-cell urethane technology. Our urethane cells "bounce back" to their original state instead of breaking down under the constant pounding of your presses. So the tape you remove in demount has the same qualities as the tape you mounted in set up. The result is millions of high-quality impressions.

### The Value of Consistency – Over Millions of Impressions

The consistent performance of R/bak SA 2000 means you can make millions of impressions at faster speeds without making adjustments. You save time, money and aggravation.

### The Right Cushion for Each Job – from Solids to Screens

R/bak SA 2000 tapes deliver award-winning quality for all your flexographic print jobs. With three levels of compressibility, R/bak SA 2000 offers the right cushion for precise results across the board, from line to process.

### Better Print Quality from Start to Finish

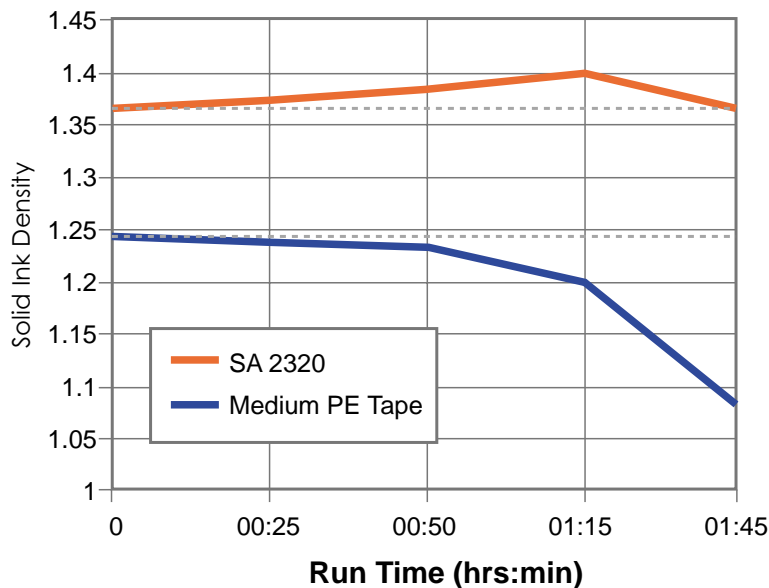
With R/bak SA 2000 cushion mounting tapes you can run even the largest jobs, knowing the results will be there. Because only the compressibility of R/bak open-cell urethane holds up to the rigors of flexographic printing.

Stop wasting time and money making on-press adjustments to achieve the results your customers demand. Instead, make a single business adjustment: change your tape to R/bak SA 2000. And deliver quality time and time again.

## As Run-time Increases, the Superior Quality of R/bak SA 2000 Remains Consistent.



Initial print quality  
with R/bak SA 2320  
tape.



R/bak SA 2320 print  
quality after 1 hour  
and 45 minutes, with  
no adjustments.



Initial print quality with  
medium PE tape.



Medium PE tape print  
quality after 1 hour  
and 45 minutes.

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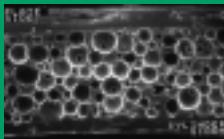


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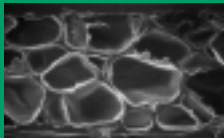


## The Science Behind the Art of Better Flexographic Results.

The big quality difference between R/bak SA 2000 and other tapes can best be seen by taking a microscopic look inside the foam. Open-cell urethane bounces back over and over again so that the tape provides the same level of cushioning no matter how many times it is compressed. Closed-cell polyethylene breaks down in use, not bouncing back and resulting in loss of ink density.



Open-cell urethane structure (magnified 100 times) naturally bounces back to deliver consistent results.



Closed-cell polyethylene's structure (magnified 100 times) changes with repeated use and requires repeated adjustments.



R/bak SA 2000 open-cell urethane foam



Closed-cell polyethylene foam



Open-cell structure "springs" recover after compression



"Balloons" or closed-cell structure ruptures under over-impression



Original performance



Loss of Impression force and reduced resiliency

## The Adhesive Difference.

The SA 2000 products utilize specially developed acrylic adhesive chemistry.

### Repositioning –

R/bak SA 2000 allows for easy repositioning of plate and tape during make-ready

### Improved solvent resistance –

acrylics stand up to alcohols and acetates commonly used in printing

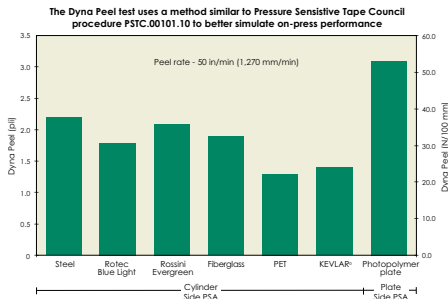
### Easier handling –

adhesive releases easily if contacted to itself

### Complete removability –

no adhesive transfer to plates or cylinders

## Peel Strength Performance of R/bak SA 2000 Adhesive System



## R/bak SA 2000 Plate-Side Adhesive Solvent Resistance

Solvent	Performance
Water-Based Ink Cleanup (20%)	Excellent — no effect on PSA or plate hold-down ability
Isopropyl Alcohol	Good — minor swelling of adhesive, no effect on plate hold-down ability
n-propyl Alcohol	Good — moderate swelling of adhesive, no effect on plate hold-down ability
Ethyl Alcohol	Fair — minor swelling of adhesive, some effect on plate hold-down ability
80:20 Solution of n-propyl Alcohol and n-propyl Acetate	Good — minor swelling of adhesive, no effect on plate hold-down ability
Methyl-ethyl Ketone	Good — minor swelling of adhesive, no effect on plate hold-down ability
Toluene	Good — moderate swelling of adhesive, no effect on plate hold-down ability

## A Cushion to Improve the Quality, Run-Time and Cost Benefit of any Flexographic Application.

R/bak® SA 2000 comes in three levels of compressibility to handle the complete range of flexographic printing, from process and fine screens to heavy solids.

And compressibility is important. *Compressibility, not density, determines performance on press.*

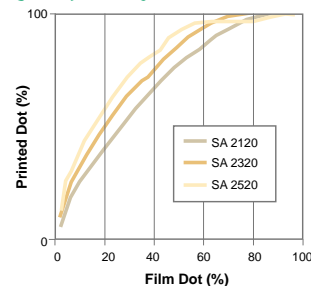
The chart below gives you the specifications for each of three families of R/bak SA 2000 cushion mounting tapes to help you determine which tape is best for a particular print job.

### R/bak SA 2000 tapes:

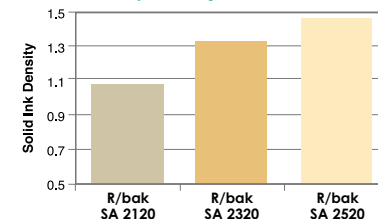
- ¥ Easy-on, easy-off acrylic adhesive
- ¥ Provide consistent print quality
- ¥ Color-coded for easy identification in the press room

## Compressibility – not Density – Determines Performance on Press.


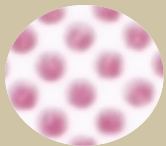



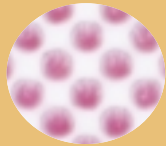



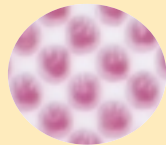


High Compressibility Foams for Reduced Dot Gain



Low Compressibility Foams for Better Solids



## R/bak SA 2000 Compressibility Selector Guide

	Benefits and Applications	Color Name	Foam Type	Adhesive Type	Tape Thickness	Typical Compressibility @15%	Typical Compressibility @25%	Max. Use Temp.	Printed Dot Samples	Positive Text Samples	Reversed Text Samples
	<b>R/bak SA 2100</b> <b>Soft Combination</b> SA 2115 & SA 2120 — 15 & 20 mil tapes for combination jobs with demanding process and screen work	Chino	Open-Cell Microcellular Urethane	Differential Acrylic	SA 2115—0.015" (0.38 mm) SA 2120—0.020" (0.51 mm)*	SA 2115—10 psi (0.7 kg/cm²) SA 2120—10 psi (0.7 kg/cm²)	SA 2115—13 psi (0.9 kg/cm²) SA 2120—13 psi (0.9 kg/cm²)	150 <sub>i</sub> F (66 <sub>i</sub> C)			
	<b>R/bak SA 2300</b> <b>General Purpose</b> SA 2315 & SA 2320 — 15 & 20 mil tapes for combination jobs with screen, line and solid work	Deerskin	Open-Cell Microcellular Urethane	Differential Acrylic	SA 2315—0.015" (0.38 mm) SA 2320—0.020" (0.51 mm)*	SA 2315—17.5 psi (1.2 kg/cm²) SA 2320—17.5 psi (1.2 kg/cm²)	SA 2315—22 psi (1.5 kg/cm²) SA 2320—22 psi (1.5 kg/cm²)	150 <sub>i</sub> F (66 <sub>i</sub> C)			
	<b>R/bak SA 2500</b> <b>Firm Combination</b> SA 2520 — 20 mil tapes for line and solid work with darker screens	Bone	Open-Cell Microcellular Urethane	Differential Acrylic	SA 2520—0.020" (0.51 mm)*	SA 2520—28 psi (2.0 kg/cm²)	SA 2520—45 psi (3.2 kg/cm²)	150 <sub>i</sub> F (66 <sub>i</sub> C)			

\* Thicknesses are listed as nominal thickness for printing operations.

The above information on R/bak SA 2000 tapes represents typical values. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. The relative merits of materials for a specific application should be determined by your evaluation.

# The Mechanics of a Successful Flexographic Print Run.



Insure cylinder is clean prior to mounting tape. Allow sufficient time for cleaning solution to dry.



Apply tape to cylinder using light pressure with the palm of your hand or a squeegee. Avoid using fingertips as this will apply uneven pressure and increase likelihood of bubbles.



Insure that the back of the plate is clean prior to mounting.



Apply plate to cylinder using the same method described above for the tape.



For long runs with aggressive plate-cleaning techniques use edge seal to insure trouble-free operation.



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