



**ROGERS**  
CORPORATION

R/bak® Cushion Mounting Materials

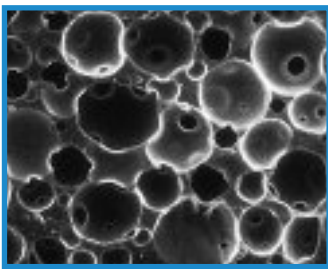
# The Leaders In Corrugated Cushion

The world runs better with Rogers.®

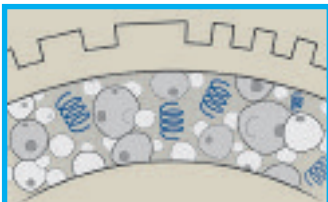
# The Science Behind the Art of Better Flexographic Results

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.

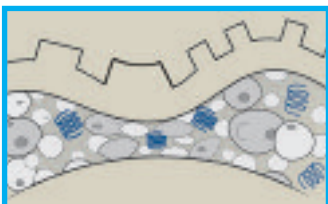
## Open Cell



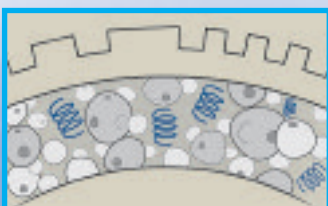
Open-cell urethane structure (magnified 100 times) naturally recovers to deliver consistent results.



R/bak open-cell urethane foam

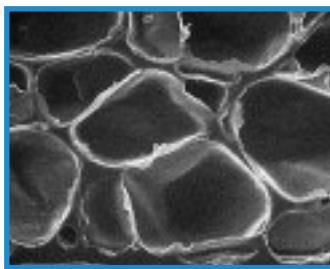


Open-cell structure "springs" recover after compression

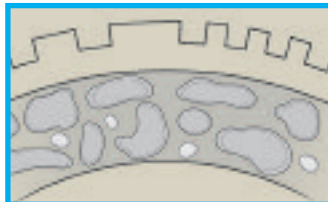


Original performance

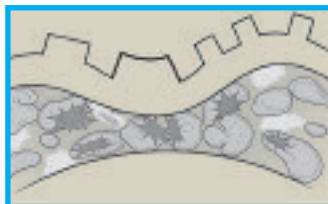
## Closed Cell



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-impression



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.



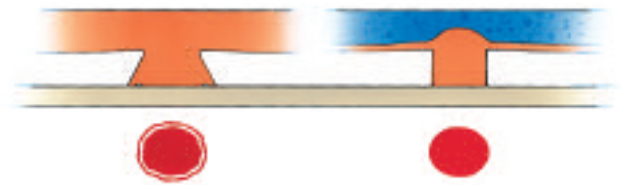
Thick plate



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.

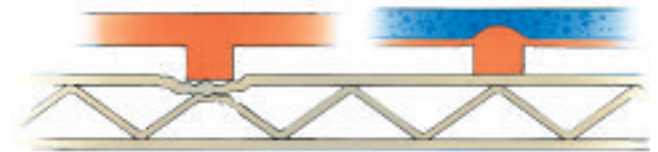


Thick plate

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.

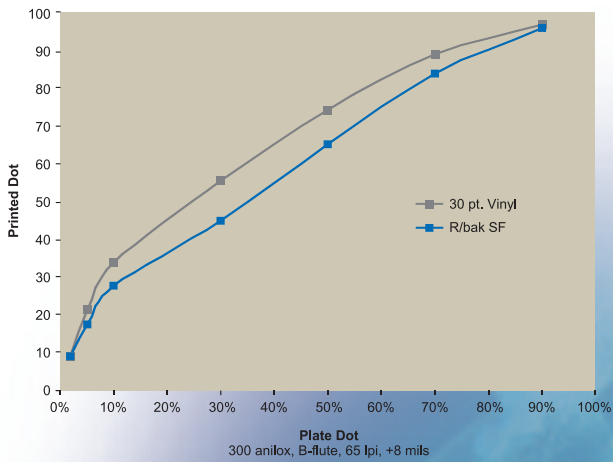
## Reduced Costs/Improved Profits

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

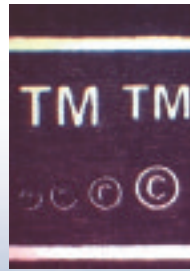
# The Technology Behind the Performance

## Reduced Dot Gain

R/bak® Cushion Mounting System for reduced dot gain



## Improves Reverse Printing

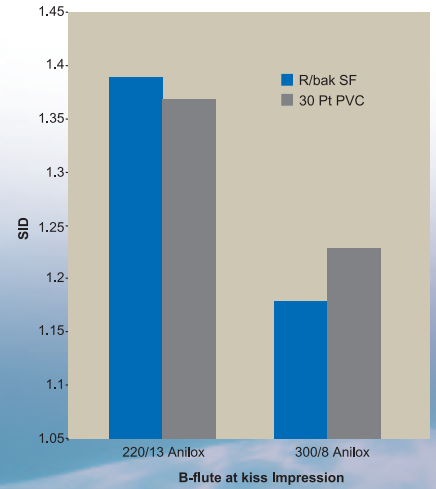


Reverse features using 30 pt PVC and no cushion



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.

The information contained in this brochure is intended to assist you in designing with Rogers' R/bak Cushions. 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 or that the results shown in this brochure will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers' R/bak Cushions for each application.



www.rogerscorp.com

solutions@rogerscorp.com

### 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.



The Rogers Corporation High Performance Foams, Woodstock Facility, Woodstock, CT is registered to ISO 9001:2000 Certificate No. A-3843.

The Rogers logo, The world runs better with Rogers. and R/bak are licensed trademarks of Rogers Corporation.  
© 2009 Rogers Corporation. All rights reserved. Printed in U.S.A. 9019-0809-2.5AG, Publication #12-113-A4