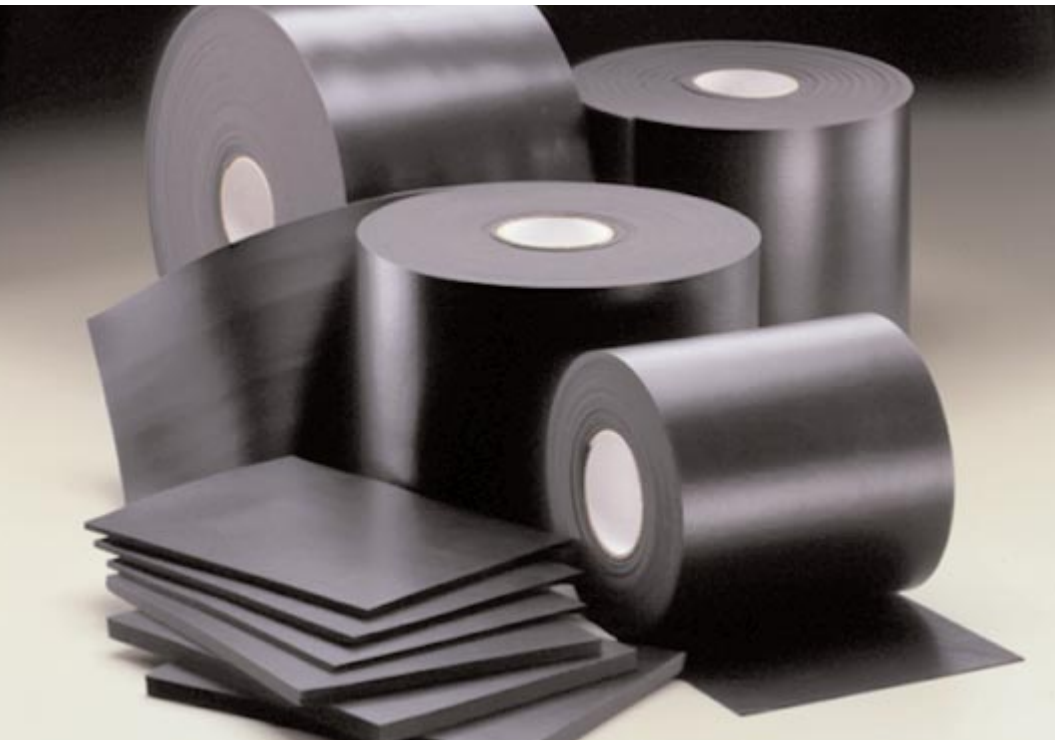


Korel® K40 Series



Korel® K40 Series Micro-cellular Polyurethane Foams

Korel® K40 series is a medium deflection urethane foam with minimal compression set and low out-gassing that exceeds fogging requirements.

Gasketing – Korel® has excellent resistance to compression set and high resiliency that ensures the seal will not break down over extended use, making it a preferred choice for gasketing applications.

Control of Unwanted Energy – The Korel® line of cushioning foam is ideal for controlling unwanted energy. These special formulations protect sensitive components by damping shock, dissipating motion, isolating vibration, and absorbing impact energy.

Non-standard products (optional – liners, adhesive, or color) can be produced by special order. Minimum and extended lead times may apply.

Other Korel® Foams

Saint-Gobain has developed a full line of Korel micro-cellular foams. By varying the modulus and density, we have created a broad product group that is categorized by degree of deflection force.

Engineered for High Performance Gasketing Applications

Features/Benefits

- Excellent compression set-resistance
- Highly resilient (will not collapse)
- Dissipates stresses
- Resistant to moisture and most chemicals
- Conformable and flexible even in extreme environmental conditions
- Easy to achieve intricate die-cut parts
- Aggressive acrylic adhesive (optional) facilitates assembly
- Available cast on to polyester film for stability and low deformation

Typical Applications

- Cellular Telephones
- Electrical Enclosures
- Electronic Gasketing
- Vibration Damping
- Cushioning
- Acoustical Control
- Bumpers
- Instrument Panels
- Spacers

Korel® K40 Series Micro-Cellular Polyurethane Foams

Property	Test Method	Korel® K40		
Physical				
Density, lb/ft ³ (kg/m ³)	ASTM D3574	20 (320)	30 (480)	35 (560)
Thickness, inches (mm)		.062 (1.5)	.020 (0.5)	.015 (0.4)
		.094 (2.4)	.030 (0.8)	
		.125 (3.2)		
		.188 (4.8)		
		.250 (6.4)		
Standard Color		Black	Black	Black
Compression Set, %	ASTM D3574 Test D			
@ 73°F (23°C)		<2	<2	<2
@158°F (70°C)		<7	<7	<7
Compression Force Deflection, psi (kPa)	ASTM D3574 TEST C			
12.7 mm/min @ 25% Deflection		10 (69)	9 (62)	12 (82)
Force to Compress @ 25%, psi (kPa)	ASTM D1667	18 (124)	13 (90)	19 (124)
Hardness, Durometer	Shore "O"	53	-	-
Tear Strength, pli (kN/m)	ASTM D624 Die C	26 (4.6)	20 (3.5)	20 (3.5)
Tensile Elongation, %	ASTM D3574	380	250	250
Tensile Strength, psi (kPa)	ASTM D3574	198 (1363)	60 (414)	60 (414)
Modulus psi (kPa)	ASTM D3574	85 (587)	50 (345)	50 (345)
Thermal				
Temperature Resistance				
Recommended Constant Use, max		158°F (70°C)	158°F (70°C)	158°F (70°C)
Recommended Intermittent Use, max		250°F (121°C)	250°F (121°C)	250°F (121°C)
Thermal Conductivity, BTU-in/hr-sq ft°F (W/m-C)	ASTM E1530	0.6 (0.086)	0.6 (0.086)	0.6 (0.086)
Environmental				
Fogging	SAE-J 1756, 3 hrs. @ 212°F (100°C)	Pass	-	-
Outgassing	ASTM E595, 24 hr. @ 257			
TML %		1.18	2.22	2.22
CVCM %		0.25	.030	.030
WVR %		-	.160	.160
Water Absorption, % wt. gain	AMS 3568-95	10	10	10
UL Testing (JMST2)	UL 50 and UL 508	File MH26338	File MH26338	File MH26338
Electrical				
Surface Resistivity, ohm/sq	ASTM D257	1.5 x 10 ¹³	1.5 x 10 ¹³	1.5 x 10 ¹³
Volume Resistivity, ohm.cm	ASTM D257	3.2 x 10 ¹⁴	3.2 x 10 ¹⁴	3.2 x 10 ¹⁴
Dielectric Strength, volts/mil	ASTM D149	47	47	47

Please Note: Because Saint-Gobain Performance Plastics cannot anticipate or control every potential application, we strongly recommend testing of this product under actual application conditions prior to commercial use.

Korel® is a registered trademark.



PERFORMANCE PLASTICS

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