

Medium Firm, Micro-Cellular Polyurethane Foam

Saint-Gobain NORSEAL® K40 series is a medium deflection urethane foam with minimal compression set and low out-gassing that exceeds fogging requirements. Ideal for controlling unwanted energy, these special formulations protect sensitive components by damping shock, dissipating motion, isolating vibration and absorbing impact energy.

NORSEAL K40 series is specially designed to provide the following features:

- Excellent compression set resistance
- Highly resilient (will not collapse)
- Dissipates stress
- 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 Sizes

Standard thickness: .063, .093, .125, .188 and .25 in. (1.6, 2.4, 3.2, 4.8 and 6.4 mm)

Master roll size: 54 in. (1371 mm) width. Length varies with thickness.

Other Micro-Cellular Urethane Foams

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



Applications

- Electrical enclosures
- Automotive instrument panels
- Electronic gasketing
- Cellphones
- Appliance/office equipment
- Foot pads
- Vibration damping
- Cushioning
- Acoustical control
- Spacers

NORSEAL® K40 Series – Properties

(Formerly known as Korel®)

Performance tests are run using standard test procedures. The values presented are typical values and should not be used for specification purposes.

Property	Test Method	K40
Physical		
Density: lb/ft ³ (kg/m ³)	ASTM D3574	20 (320)
Thickness: inches (mm)	—	.063, .093, .125, .188, .250 (1.6, 2.4, 3.2, 4.8, 6.4)
Standard Color	—	Black
Compression Set: % @ 73°F (23°C) @158°F (70°C)	ASTM D3574 Test D	< 2 < 7
Compression Force Deflection: psi (kPa) 12.7 mm/min @ 25% Deflection	ASTM D3574 Test C	10 (69)
Force to Compress @ 25%, psi (kPa)	ASTM D1667	18 (124)
Hardness: Durometer	Shore O	53
Tear Strength: pli (kN/m)	ASTM D624 Die C	26 (4.6)
Tensile Elongation: %	ASTM D3574	380
Tensile Strength: psi (kPa)	ASTM D3574	198 (1363)
Modulus: psi (kPa)	ASTM D3574	85 (587)
Thermal		
Temperature Resistance Recommended Constant Use, max Recommended Intermittent Use, max	— —	158°F (70°C) 250°F (121°C)
Thermal Conductivity: BTU-in/hr-sq ft°F (W/m-C)	ASTM E1530	0.6 (0.086)
Environmental		
Fogging	SAE-J 1756, 3 hrs. @ 212°F (100°C)	Pass
Outgassing: TML % CVCM % WVR %	ASTM E595, 24 hr. @ 257	1.18 0.25 —
Water Absorption: % wt. gain	AMS 3568-95	10
Electrical		
Surface Resistivity: ohm/sq	ASTM D257	1.5 x 10 ¹³
Volume Resistivity: ohm.cm	ASTM D257	3.2 x 10 ¹⁴
Dielectric Strength: volts/mil	ASTM D149	47

NORSEAL® K40 – Standard Roll Sizes

Product No.	Thickness in. (mm)	Length ft. (m)
K40-063	.063 (1.5)	200 (61)
K40-093	.093 (2.4)	100 (30.5)
K40-125	.125 (3.2)	100 (30.5)
K40-188	.188 (4.8)	50 (15.3)
K40-250	.25 (6.4)	50 (15.3)

Options (subject to minimum order requirements)

Acrylic pressure-sensitive adhesive (PSA) available on one side.

Important Instructions

- Because Saint-Gobain cannot anticipate or control every potential application, we strongly recommend testing of this product under individual application conditions prior to commercial use.
- Recommended service temperature is between -40° to 158°F (-40° to 70°C).
- For PSA option, surfaces must be clean and free of oil, grease, moisture, dust and dirt. Isopropyl alcohol is good for cleaning the surface. Do not remove liner until tape is in proper position. Avoid touching adhesive surface before application.

Shelf Life

12 months after the date of sale when stored in original packaging at temperatures up to 70°F (21°C) and 50% relative humidity.

NORSEAL® is a registered trademark of Saint-Gobain Performance Plastics.



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