



TBP Converting, Inc.  
Saint Gobain K40 Series PDS

# K40 SERIES

## Medium firmness, 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.

The **Norseal** K40 series is specially designed to provide the following features:

- 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 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.

Color: Black

### 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**

(Formally 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	Wood Value
<b>Physical</b>		
Density, lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	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 <sup>13</sup>
Volume Resistivity, ohm.cm	ASTM D257	3.2 x 10 <sup>14</sup>
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 1 side as option.

**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.



**IMPORTANT:** It is the user’s responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics products for all intended uses and that the materials to be used comply with all applicable regulatory requirements. Saint-Gobain Performance Plastics assumes no responsibility for any product failures that occur due to misuse of the materials it provides arising out of the design, fabrication or application of the products into which the materials are incorporated.

**WARRANTY:** For a period of 6 months, Saint-Gobain Performance Plastics warrants this product(s) to be free from defects in manufacturing. The only obligation under any applicable product warranty will be to replace any portion proving defective, or at our option, to refund the purchase price thereof. SAINT-GOBAIN PERFORMANCE PLASTICS DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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