

# Korel® K40 Series



## KOREL® K40 Series Micro-Cellular Polyurethane Foams

KOREL® K40 series is a medium deflection polyurethane 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 product (optional - liners, adhesive or colour) 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 onto polyester film for stability and low deformation

### Typical Applications

- Mobile phones
- Electrical enclosures
- Electronic gasketing
- Vibration damping
- Cushioning
- Acoustical control
- Bumpers
- Instrument panels
- Spacer

# KOREL® K40

Properties	Test Method	KOREL K40
<b>Physical</b>		
Density (kg/m <sup>3</sup> )	ASTM D3574	320
Thickness (mm)		1.5 - 2.4 - 3.2 4.8 - 6.4
Colour		Black
Compression set (%) @ 23°C @ 70°C	ASTM D3574 - Test D	< 2 < 7
Compression force deflection (kPa) 12.7mm/min @ 25% Deflection	ASTM D3574 - Test C	69
Force to compress (kPa) @ 25%	ASTM D1667	124
Hardness, Durometer	Shore "O"	53
Tear strength (kN/m)	ASTM D624 Die C	4.6
Tensile elongation (%)	ASTM D3574	380
Tensile strength (kPa)	ASTM D3574	1363
Modulus (kPa)	ASTM D3574	587
<b>Thermal</b>		
Recommended constant use, max. (°C)		70
Recommended intermittent use, max. (°C)		120
Thermal conductivity (W/m-C)	ASTM E1530	0.086
<b>Environmental</b>		
Fogging	SAE-J 1756 - 3hrs @ 100°C	OK
Outgassing TML % CVCM % WVR %	ASTM E595 - 24hrs @ 125°C	1.18 0.25 -
Water absorption (% wt. gain)	AMS 3568-95	10
<b>Electrical</b>		
Surface resistivity, ohm/sq	ASTM D257	1.5 x 10 <sup>13</sup>
Volume resistivity, ohm/sq	ASTM D257	3.2 x 10 <sup>14</sup>
Dielectric strength, volts/mil	ASTM D149	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.

Distributor:
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