

# Korel® K20 - Thin/Very Soft Series



## KOREL® - Thin / Very Soft

KOREL® K20 series micro-cellular urethane foams include thin gauge formulations. The products are available from 0.5 to 1.0mm. These very soft conformable foams maintain excellent compression set resistance even under elevated temperatures. The more conformable foam allows for improved sealability on parts with variable dimensions and will absorb thermal expansion / contraction movement. These products are offered on PET liner for stability and aid in die-cutting.

Saint-Gobain Performance Plastics flexible manufacturing allows KOREL® to be offered with a number of options:

- Polyester: 0.05mm thick polyester (PET) film is available as a permanent integral part of the foam. The polyester allows for ease in handling and elimination of stretch (standard).
- Paper: White, coated two sides for easy release (optional for all).
- Non-standard products (optional - liners or colour) can be produced by special order. Minimum and extended lead times may apply.

Thin gauge, very soft, low deflection, conformable micro-cellular urethane foam with excellent compression set resistance.

## Features & Benefits

- Reduce force to compress - easier to assemble parts, and less stress on components
- Conformable foam - maintains a seal on parts with variable dimensions, and absorbs expansion contraction movement
- Excellent compression set resistance
- Resistant to moisture and most chemicals
- Available cast onto polyester film for stability

## Applications

- LCD gaskets
- Casing / Housing seals
- Speaker and sound management gaskets

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| Properties   | Test Method                  | KOREL K20            |                      |                      |
|--|------------------------------|----------------------|----------------------|----------------------|
| <b>Physical</b>  |                              |                      |                      |                      |
| Density (kg/m <sup>3</sup> )   | ASTM D3574                   | 400                  | 440                  | 480                  |
| Thickness (mm)   |                              | 1.0                  | 0.8 - 0.7            | 0.5                  |
| Colour   |                              | Black                | Black                | Black                |
| Compression set (%)<br>50% @ 23°C<br>50% @ 70°C                      | ASTM D3574<br>Test D         | 2<br>10              | 2<br>10              | 2<br>10              |
| Compression force deflection (kPa)<br>12.7mm/min @ 25% - 1 min.dwell | ASTM D3574<br>Test C         | 14                   | 17                   | 21                   |
| Force to compress (kPa)<br>12.7mm/min @ 25% - instantaneous          | ASTM D3574<br>Test C         | 17                   | 23                   | 28                   |
| <b>Thermal</b>   |                              |                      |                      |                      |
| Recommended constant use, max. (°C)                                  |                              | 70                   | 70                   | 70                   |
| Recommended intermittent, max. (°C)                                  |                              | 121                  | 121                  | 121                  |
| Storage temperature  | 100°C for 1000 hrs.          | OK                   | OK                   | OK                   |
| Thermal conductivity (W/m-C)   | ASTM E1530                   | 0.086                | 0.086                | 0.086                |
| <b>Environmental</b>   |                              |                      |                      |                      |
| Fogging  | SAE-J 1756<br>3 hrs @ 100°C  | OK                   | OK                   | OK                   |
| Outgassing   | ASTM E1530<br>25 hrs @ 110°C | 1.06                 | 1.06                 | 1.06                 |
|  | TML %                        | 0.25                 | 0.25                 | 0.25                 |
|  | CVCM %                       | 0.14                 | 0.14                 | 0.14                 |
|  | WVR %                        |                      |                      |                      |
| <b>Electrical</b>  |                              |                      |                      |                      |
| Surface resistivity, ohm/sq  | ASTM D257                    | 3 × 10 <sup>15</sup> | 4 × 10 <sup>15</sup> | 5 × 10 <sup>15</sup> |
| Volume resistivity, ohm/sq   | ASTM D257                    | 4 × 10 <sup>14</sup> | 5 × 10 <sup>14</sup> | 6 × 10 <sup>14</sup> |
| Dielectric strength, volts/mil                                       | ASTM D149                    | 47                   | 47                   | 47                   |

Distributor:

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