

Typical Product Properties

PORON® AquaPro® 4701-41 Soft – Enhanced Sealability- Data Sheet

| PROPERTY | TEST METHOD | VALUE | | |
|--|---|---|-----------------------------------|------------------------------------|
| PHYSICAL | | | | |
| Density, kg /m ³ (lb. / ft ³) Tolerance, % | ASTM D 3574-95, Test A | 240 (15) | 320 (20) | 480 (30) |
| | | ± 10 | | |
| Thickness, mm (inches) Tolerance, % | | 4.78 – 12.70 (0.188-0.500) | 1.57 – 3.18 (0.062- 0.125) | 0.79 – 1.14 (0.031-0.045) |
| | | ± 10 | | ± 20 |
| Standard Color (Code) | | Black (04) | | |
| Compression Force Deflection, kPa (psi) Typical, kPa (psi) | 0.51 cm/min (0.2" / min.) Strain Rate Force Measured @ 25% Deflection | 41 – 83 (6 – 12) 64 (9.3) | 76 – 138 (11 – 20) 103 (15) | 138 – 317 (20 – 46) 193 (28) |
| Hardness, Durometer, Shore "O" | ASTM D 2240-97 | 18 | 24 | 55 |
| Compression Set, % max. after 24 hour recovery | ASTM D 3574-95 Test D @ 23°C (73°F) ASTM D 3574-95 Test D @ 70°C (158°F) ASTM D 3574-95 Test J/Test D autoclaved 5 hrs @ 121°C (250°F) | 5 10 5 | | |
| Dimensional Stability, % max. change | 22 hrs @ 80°C (176°F) in a forced-air oven | ± 2 | | |
| Tensile Strength, min. kPa (psi) | ASTM D 3574-75 Test E | 276 (40) | 517 (75) | 827 (120) |
| Tensile Elongation, % min. | ASTM D 3574-75 Test E | 100 | 100 | 100 |
| Tear Strength, Min. kN/m (pli), Typical kN/m (pli) | ASTM D 264-91 Die C | 1.1 (6) 1.8 (10) | 1.4 (8) 2.3 (13) | 2.6 (15) 3.2 (18) |
| ELECTRICAL AND THERMAL | | | | |
| Dielectric Constant, K' ("DK") | ASTM D 150 measurements at 22°C (72°F) relative humidity 50% for 24 hrs. | 1.71 | | |
| Dielectric Strength, kVm (volts/mil) | ASTM D 149-97a | 1969 (50) | | |
| Dissipation Factor, tan D ("DF") | ASTM D 150-98 | 0.05 | | |
| Volume Resistivity, ohm-cm | ASTM D 257-99 | 1 x 10 ¹² | | |
| Surface Resistivity, ohm/sq. | ASTM D 257-99 | 2 x 10 ¹² | | |
| Thermal Conductivity, W/m-C (BTU-in./hr/ft ² -F) | ASTM C 518-98 | - | - | - |
| Coefficient of Thermal Expansion | | 2.3-3.1 x 10 ⁻⁴ in/in/°C (1.3-1.7x10 ⁻⁴ in/in/°F) | | |

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PORON® AquaPro® 4701-41 Soft – Enhanced Sealability, Continued

| PROPERTY | TEST METHOD | VALUE | | |
|---|---|-----------------------------|------|------|
| TEMPERATURE RESISTANCE | | | | |
| Recommended Constant Use, max. | SAE J-2236 | 90°C (194°F) | | |
| Recommended Intermittent Use, max. | | 121°C (250°F) | | |
| Embrittlement | ASTM D 746-98 | - | | |
| Cold Flexibility | MIL-P-12420D 1991 @ -40°C (-40°F) | Pass | | |
| FLAMMABILITY AND OUTGASSING | | | | |
| Flammability, mm (inches) | UL 94HBF (File E20305) (Pass ≥) | 4.8 (0.188) | | |
| | MVSS 302 (Pass ≥) | - | | |
| | CSA Comp HBF (File 188149) (Pass ≥) | - | | |
| Fogging | SAE J-1756 3 hrs @ 100°C (212°F) | - | | |
| Outgassing, Total Mass Loss (TML) % | ASTM E 595-93 24 hrs @ 125°C (257°F) @ <7x10 ³ Pa | 0.84 | 0.97 | 1.0 |
| Outgassing, Collected Volatile Condensable Materials (CVCM) % | | 0.05 | 0.04 | 0.06 |
| Outgassing, Water Vapor Regain (WVR) % | | 0.4 | 0.46 | 0.65 |
| ENVIRONMENTAL | | | | |
| Gasketing and Sealing | UL JMST2 (Consisting of UL50 and UL508) CAN/CSA – C22.2 No. 94-M91 | File MH15464 File 188149 | | |
| Moisture Absorption, High Humidity Exposure, % weight gain, typical | AMS 3568-95 | 3 | | |
| Water Absorption, Immersion Testing, % weight gain, typical | ASTM D 570-95 | 15 | 13 | 6 |
| UV Resistance | ASTM G 53-96 | - | | |
| Ozone Resistance | GM 4486P-95 | - | | |
| Corrosion Resistance | AMS 3568-91 | - | | |
| Mildew/Bacteria Resistance | ASTM G 21 | Good | | |
| Staining | ASTM D 925 | No Stain | | |
| Skin Contact Irritation | Primary Skin Irritation Test (FHSA) | Pass | | |

Notes:

- - Represents testing not available at this time.
- All metric conversions are approximate.
- Additional technical information is available.
- Typical values should not be used for specification limits.

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