

Product Data Sheet

PORON® AquaPro™ 4701-41 Soft – Enhanced Sealability

| PROPERTY | TEST METHOD | VALUE | | |
|--|---|---|--------------------------------|--------------------------------|
| PHYSICAL | | | | |
| Density, lb. / ft ³ (kg /m ³) | ASTM D 3574-95, Test A | 15 (240) | 20 (320) | 30 (480) |
| Tolerance, % | | ± 10 | | |
| Thickness, inches (mm) | | 0.188 - 0.500 (4.78 – 12.70) | 0.062 - 0.125 (1.57 – 3.18) | 0.031 - 0.045 (0.79 – 1.14) |
| Tolerance, % | | ± 10 | | ± 20 |
| Standard Color (Code) | | Black (04) | | |
| Compression Force Deflection, psi (kPa) | 0.2" / min. Strain Rate Force Measured @ 25% Deflection | 6 - 12 (41 - 83) | 11 - 20 (76 - 138) | 20 - 46 (138 - 317) |
| Typical psi (kPa) | | 9.3 (64) | 15 (103) | 28 (193) |
| Hardness, Durometer, Shore "O" | ASTM D 2240-97 | 18 | 24 | 55 |
| Compression Set, % max. after 24 hour recovery | ASTM D 3574-95 Test D @ 73°F (23°C) ASTM D 3574-95 Test D @ 158°F (70°C) ASTM D 3574-95 Test J/Test D autoclaved 5 hrs @ 250°F (121°C) | 5 10 5 | | |
| Dimensional Stability, % max. change | 22 hrs @ 176°F (80°C) in a forced-air oven | ± 2 | | |
| Tensile Strength, Min. psi (kPa), Typical psi (kPa) | ASTM D 3574-75 Test E | 40 (276) 67 (462) | 75 (517) 88 (607) | 120 (827) 149 (1027) |
| Tensile Elongation, % min., Typical | ASTM D 3574-75 Test E | 100 149 | 100 140 | 100 136 |
| Tear Strength, Min. pli (kN/m), Typical pli (kN/m) | ASTM D 264-91 Die C | 6 (1.1) 10 (1.8) | 8 (1.4) 13 (2.3) | 15 (2.6) 18 (3.2) |
| ELECTRICAL AND THERMAL | | | | |
| Dielectric Constant, K' ("DK") | ASTM D 150 measurements at 72°F (22°C) relative humidity 50% for 24 hrs. | 1.71 | | |
| Dielectric Strength, volts/mil | ASTM D 149-97a | 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 | | |

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PORON AquaPro 4701-41 Soft – Enhanced Sealability Continued

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|---|---|-----------------------------|----------|----------|
| Density, lb. / ft ³ (kg / m ³) | ASTM D 3574-95, Test A | 15 (240) | 20 (320) | 30 (480) |
| TEMPERATURE RESISTANCE | | | | |
| Recommended Constant Use, max. | SAE J-2236 | 194°F (90°C) | | |
| Recommended Intermittent Use, max. | | 250°F (121°C) | | |
| Embrittlement | ASTM D 746-98 | - | | |
| Cold Flexibility | MIL-P-12420D 1991 @ -40°F (40°C) | Pass | | |
| FLAMMABILITY AND OUTGASSING | | | | |
| Flammability | UL 94HBF (File E20305) (Pass ≥) MVSS 302 (Pass ≥) CSA Comp HBF (File 188149) (Pass ≥) | 0.188" - - | | |
| Fogging | SAE J-1756 3 hrs @ 212°F (100°C) | - | | |
| Outgassing, Total Mass Loss (TML) % | ASTM E 595-93 24 hrs @ 257°F (125°C) @ <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: All metric conversions are approximate.
Additional technical information is available.

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