

RH Nuttall Limited

Great Brook Street
Nechells Green
Birmingham B7 4EN

Material Specification Sheet

e: sales@rhnutall.co.uk
t: 0121 359 2484
f: 0121 359 4439

RHN 9B



www.rhnutall.co.uk

Poron® 4701-40 Soft

Property	Test Method	Typical Value		
Physical				
Density, lb./ft3 (kg/m3)	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 Colour (Code)		Black (04)		
Compression Force Deflection, psi (kPa) Typical psi (kPa)	0.2"/min. Strain Rate Force Measured @ 25% Deflection	4-8 (27-55) 5 (41)	7-13 (48-90) 11 (76)	15-40 (104-276) 25 (173)
Hardness, Durometer, Shore "O" Shore "A"	ASTM D 2240-97	12 8	17 12	34 25
Compression Set, % max.	ASTM D 1667-90 Test D @ 73°F (23°C) ASTM D 574-95 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	±1		
Tensile Strength, Min. psi (kPa) Typical psi (kPa)	ASTM D 3574-75 Test E	40 (276) 70 (484)	75 (518) 95 (657)	120 (829) 170 (1175)
Tensile Elongation, % max., Typical	ASTM D 3574-75 Test E	100 160	100 155	100 145
Tear Strength, Min. pli (kN/m), Typical pli (kN/m)	ASTM D 264-91 Die C	3 (0.5) 9 (1.6)	5 (0.9) 12 (2.1)	12 (2.1) 17 (3.0)
Electrical & 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/ft2-F)	ASTM C 518-98	-	0.086 (0.60)	-
Coefficient of Thermal Expansion		2.3-3.1 x 10 ⁻⁴ in./in./°C		
Density, lb. ft³ (kg/m³)	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.	ASTM D 746-98	250°F (121°C)		
Embrittlement	ASTM D 746-98	-40°F (-40°C)		

The information given above is based upon average values and is no way intended as a warranty. The purchaser is deemed responsible for determining the suitability of the product for any application. All data relating to suitable uses and description information concerning our products are compiled from research and are believed to be reliable but are provided for guidance purposes only. The Company holds no legal or contractual responsibility for information supplied



RH Nuttall Limited

Great Brook Street
Nechells Green
Birmingham B7 4EN

Material Specification Sheet

e: sales@rhnutall.co.uk
t: 0121 359 2484
f: 0121 359 4439

RHN 9B



www.rhnutall.co.uk

Poron® 4701-40 Soft

Property	Test Method	Typical Value		
Cold Flexibility	MIL-P-12420D 1991 @ -40°F (40°C)	Pass		
Flammability & Outgassing				
Flammability	UL 94HBF (File E20305) (Pass≥) MVSS 302 (Pass≥) CSA Comp HBF (File 188149) (Pass≥)	0.188"	0.062"	-
		0.188"	0.062"	-
		0.188"	0.062"	-
Fogging	SAE J-1756 3 hrs @ 212°F (100°C)	Pass	Pass	-
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 257°F (125°C) @ <7x10 ³ Pa	0.7	0.8	1.0
Outgassing Collected Volatile Condensable Materials (CVCM) %		0.04	0.04	0.65
Outgassing, Water Vapour Regain (WVR) %		0.3	0.3	0.62
Environmental				
Gasketing and Sealing	UL JMST2 (Consisting of UL50 and UL508) Can/csa-c22.2 No. 94-M91	File MH15464 File 188149	-	
Water Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	2	2	-
Water Absorption, Immersion Testing, % weight gain, typical	ASTM D 570-95	10	10	-
UV Resistance	ASTM G 53-96	Good	Good	-
Ozone Resistance	GM 4486P-95	Pass	Pass	-
Corrosion Resistance	AMS 3568-91	Pass	Pass	-
Mildew/Bacteria Resistance	ASTM G 21	Good		
Staining	ASTM D 925	No Stain		
Skin Contact Irritation	Primary Skin Irritation Test (FHSA)	Pass		

Notes:

1. All metric conversions are approximate.
2. Additional technical information is available.

© 2016 Rogers Corporation

The information given above is based upon average values and is no way intended as a warranty. The purchaser is deemed responsible for determining the suitability of the product for any application. All data relating to suitable uses and description information concerning our products are compiled from research and are believed to be reliable but are provided for guidance purposes only. The Company holds no legal or contractual responsibility for information supplied

