



PORON° 4701-V0-M Medium

DATA SHEET

DENSITY, kg / m³ (lb. / fe²)	PROPERTY	TEST METHOD	PORON® V-0
Tolerance, % #10 COMPRESSION FORCE DEFLECTION, kPa Modified ASTM D 3574: #1 - 110 (psi) PTP-0033 at 25% deflection (6 - 16) (FOAM PROPERTIES		
Modified ASTM D 3574:	DENSITY, kg / m³ (lb. / ft³)	ASTM D 3574 Test A	400 (25)
(psi) PTP-0033 at 25% deflection (6 - 16) COMPRESSION SET, % ASTM D 35774 Test D, Z3°C 5 COMPRESSION SET, % ASTM D 35774 Test D, 70°C 10 TENSILE, kPa (psi) ASTM D 35774 Test E Typical Value: 580 (84) ELONGATION, % ASTM D 3574 Test E Typical Value: 111 HARDNESS, pts SHORE O Typical Value: 24 STANDARD COLOR (CODE) Smoke Gray (107) TEMPERATURE RANGE Smoke Gray (107) RECOMMENDED CONSTANT USE, Max °C (Max °F) SAE J-2236 for 1008 hours 90 (194) RECOMMENDED INTERMITTENT USE, Max °C (Max °F) SAE J-2236 for 168 hours 121 (250) BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) ASTM D 746-13 -20 (-4) COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAME RESISTANCE UL94 V-0 PASS ENVIRONMENTAL / OFFGASSING PASS ROHS 2.0 TESTING SGS REPORT PASS REACH COMPLIANCE PASS WATER ABSORPTION, Typical % ASTM D570 (Immersion Testing) 25 ELECTRICAL AND THERMAL -4.0 at 20 Hz (~2.6 at 1x10° Hz (~2.6 at 1x10° Hz (~2.6	Tolerance, %		±10
ASTM D 3574 Test D, 23°C 5	COMPRESSION FORCE DEFLECTION, kPa	Modified ASTM D 3574:	41 - 110
ASTM D 3574 Test D, 70°C 10	(psi)	PTP-0033 at 25% deflection	(6 - 16)
TENSILE, kPa (psi)	COMPRESSION SET, %	ASTM D 3574 Test D, 23°C	5
ELONGATION, % ASTM D 3574 Test E Typical Value: 211 Typical Value: 24 STANDARD COLOR (CODE) TEMPERATURE RANGE RECOMMENDED CONSTANT USE, Max °C (Max °F) RECOMMENDED CONSTANT USE, Max °C (Max °F) BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) COLD FLEXIBILITY FLAMMABILITY UL94 V-0 UL94 V-0 UL94 VF-1 FMVSS 302 PASS ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ASTM D 149 ASTM D 149 ASTM D 149 ASTM D 149 ASTM D 150 at RT ASTM D 150 at RT ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT O.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate ASTM D 5 C/min heating rate Typical Value: 24 Smoke Gray (107) Texpical Value: 24 Smoke Gray (107) Typical Value: 24 Smoke Gray (107) Typical Value: 24 Smoke Gray (107) Smoke Gray (107) Topical Value: 24 Smoke Gray (107) Smoke Gray (107) Topical Value: 24 Smoke Gray (107) Smoke Gray (107) Topical Value: 24 Smoke Gray (107) Smoke Gray (107) Topical Value: 24 Smoke Gray (107) Smoke Gray (107) Topical Value: 24 Smoke Gray (108) Topical Value: 24 Smoke Gray (108) Topical Value: 24 Smoke Jeau 108 Topical Value: 24 Smoke Jeau 108 Topical Value:	COMPRESSION SET, %	ASTM D 3574 Test D, 70°C	10
HARDNESS, pts SHORE O Typical Value: 24 STANDARD COLOR (CODE) TEMPERATURE RANGE RECOMMENDED CONSTANT USE, Max °C (Max °F) RECOMMENDED CONSTANT USE, Max °C (Max °F) SAE J-2236 for 1008 hours 90 (194) RECOMMENDED INTERMITTENT USE, Max °C (Max °F) BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) ASTM D 746-13 -20 (-4) COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAMMABILITY UL94 V-0 PASS ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ASTM D 570 (Immersion Testing) ASTM D 570 (Immersion Testing) 25 ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm ASTM D 149 ASTM D 149 ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate O 0.0031	TENSILE, kPa (psi)	ASTM D 3574 Test E	Typical Value: 580 (84)
STANDARD COLOR (CODE) Smoke Gray (107)	ELONGATION, %	ASTM D 3574 Test E	Typical Value: 111
TEMPERATURE RANGE RECOMMENDED CONSTANT USE, Max °C (Max °F) SAE J-2236 for 1008 hours 90 (194)	HARDNESS, pts	SHORE O	Typical Value: 24
RECOMMENDED CONSTANT USE, Max °C (Max °F) SAE J-2236 for 1008 hours 90 (194) RECOMMENDED INTERMITTENT USE, Max °C (Max °F) SAE J-2236 for 168 hours 121 (250) BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) ASTM D 746-13 -20 (-4) COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAMMABILITY UL94 V-0 PASS FLAME RESISTANCE PASS EVAMPENDATE OF FORSSING PASS ROHS 2.0 TESTING SGS REPORT PASS REACH COMPLIANCE PASS WATER ABSORPTION, Typical % AMS 3568B (High Humidity) <2	STANDARD COLOR (CODE)		Smoke Gray (107)
RECOMMENDED INTERMITTENT USE, Max °C (Max °F) SAE J-2236 for 168 hours 121 (250) BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) ASTM D 746-13 -20 (-4) COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAMMABILITY UL94 V-0 PASS ENVIRONMENTAL / OFFGASSING UL94 HF-1 PASS ENVIRONMENTAL / OFFGASSING PASS ROHS 2.0 TESTING SGS REPORT PASS REACH COMPLIANCE PASS WATER ABSORPTION, Typical % AMS 35688 (High Humidity) <2	TEMPERATURE RANGE		
BRITTLENESS TEMPERATURE BY IMPACT, °C (°F) COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAMMABILITY UL94 V-0 PASS FLAME RESISTANCE UL94 HF-1 FMVSS 302 PASS ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC STRENGTH, kV/mm ASTM D 149 LSTM D 150 at RT ASTM D 150 at RT ASTM D 150 at RT ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT O.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate OU.94 V-0 PASS PASS ASTM D 40°C (-40°F) PASS PASS ASTM D 40°C (-40°F) PASS ASTM D 45°C (Immersion Testing) 1.5 Surface Resistivity ~ 10°1 Ohm/sq Volume Resistivity ~ 10°1 Ohm/sq Volume Resistivity ~ 10°1 Ohm/sq Volume Resistivity ~ 10°1 Ohm-cm	RECOMMENDED CONSTANT USE, Max °C (Max °F)	SAE J-2236 for 1008 hours	90 (194)
COLD FLEXIBILITY MIL-P-12420 D at -40°C (-40°F) PASS FLAMMABILITY UL94 V-0 PASS FMVSS 302 PASS ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT PASS REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm ASTM D149 DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT COEFFICIENT OF THERMAL EXPANSION, mm/mm C MIL-P-12420 D at -40°C (-40°F) PASS PASS AMS 3568B (High Humidity) ASS AMS 3568B (High Humidity) ASTM D150 at RT ASTM D149 ASTM D150 at RT ASTM D150 at RT ASTM D150 at RT ASTM D257 VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT ASTM 1530 at RT ASTM 1530 at RT ASTM 1530 at RT ASTM 1550 at	RECOMMENDED INTERMITTENT USE, Max °C (Max °F)	SAE J-2236 for 168 hours	121 (250)
FLAMMABILITY BELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) FLAMMABILITY UL94 V-0 PASS UL94 V-0 PASS UL94 V-0 PASS UL94 W-0 PASS PASS AMS 302 PASS PASS PASS AMS 3568 (High Humidity) ASTM D570 (Immersion Testing) DIELECTRIC STRENGTH, kV/mm ASTM D149 DIELECTRIC CONSTANT, K (DK) Rogers Method based on ASTM D257 THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT D.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate UL94 V-0 PASS PASS AMS 3568 (High Humidity) ASTM D150 (Immersion Testing) D15 Surface Resistivity ~ 10°1 Ohm/sq Volume Resistivity ~ 10°1 Ohm/sq	BRITTLENESS TEMPERATURE BY IMPACT, °C (°F)	ASTM D 746-13	-20 (-4)
UL94 V-0	COLD FLEXIBILITY	MIL-P-12420 D at -40°C (-40°F)	PASS
FLAME RESISTANCE UL 94 HF-1 FMVSS 302 PASS ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm ASTM D 149 ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM D 150 at RT ASTM D 150 at RT ROGERS Method based on ASTM D 257 THERMAL CONDUCTIVITY, W/m-K ASTM D 150 at RT O.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate O.00031	FLAMMABILITY		
ENVIRONMENTAL / OFFGASSING ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C FMVSS 302 PASS AMS 3568B (High Humidity) < 2 ASTM D570 (Immersion Testing) 25 ELECTRIC ALL AND THERMAL ASTM D149 ASTM D150 at RT -4.0 at 20 Hz (~2.6 at 1x106 Hz) Surface Resistivity ~1011 Ohm/sq Volume Resistivity ~1011 Ohm/sq Volume Resistivity ~1011 Ohm/sq THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate 0.00031		UL94 V-0	PASS
ROHS 2.0 TESTING SGS REPORT REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C PASS AMS 3568B (High Humidity) ASTM D570 (Immersion Testing) 25 ASTM D570 (Immersion Testing) ASTM D149 1.5 ASTM D150 at RT ASTM D150 at RT ASTM D257 Surface Resistivity ~ 10 ¹¹ Ohm/sq Volume Resistivity ~ 10 ¹² Ohm/sq Volume Resistivity ~ 10 ²¹ Ohm-cm	FLAME RESISTANCE	UL94 HF-1	PASS
REACH COMPLIANCE WATER ABSORPTION, Typical % ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C PASS AMS 3568B (High Humidity) ASTM D 16High Humidity) ASTM D 170 (Immersion Testing) ASTM D 149 ASTM D 149 ASTM D 150 at RT A.0 at 20 Hz (~2.6 at 1x106 Hz) Surface Resistivity ~ 10 ¹¹ Ohm/sq Volume Resistivity ~ 10 ¹¹ Ohm-cm THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT O.292 TMA at 5 C/min heating rate O.00031		FMVSS 302	PASS
REACH COMPLIANCE WATER ABSORPTION, Typical % AMS 3568B (High Humidity) ASTM D570 (Immersion Testing) ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm ASTM D 149 DIELECTRIC CONSTANT, K (DK) ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C AMS 3568B (High Humidity) ASTM D 570 (Immersion Testing) 25 ASTM D 149 ASTM D 149 ASTM D 150 at RT -4.0 at 20 Hz (~2.6 at 1x106 Hz) Volume Resistivity ~ 10 ¹¹ Ohm/sq Volume Resistivity ~ 10 ¹¹ Ohm-cm THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 TMA at 5 C/min heating rate 0.00031	ENVIRONMENTAL / OFFGASSING		
WATER ABSORPTION, Typical % AMS 3568B (High Humidity) ASTM D570 (Immersion Testing) ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm ASTM D 149 ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K ASTM D 150 at RT ASTM D 150 at RT Rogers Method based on ASTM D 257 Wolume Resistivity ~ 10 ¹¹ Ohm-cm THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 TMA at 5 C/min heating rate 0.00031	ROHS 2.0 TESTING SGS REPORT		PASS
WATER ABSORPTION, Typical % ASTM D570 (Immersion Testing) ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) ASTM D 149 1.5 ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C ASTM D 150 at RT Rogers Method based on ASTM D 257 Volume Resistivity ~ 10 ¹¹ Ohm-cm TMA at 5 C/min heating rate 0.00031	REACH COMPLIANCE		PASS
ELECTRICAL AND THERMAL DIELECTRIC STRENGTH, kV/mm DIELECTRIC CONSTANT, K (DK) VOLUME RESISTIVITY (DRY AND 90% RH) THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C ASTM D570 (Immersion Testing) ASTM D170 (Immersion Testing) ASTM D170 (Immersion Testing) ASTM D149 ASTM D149 ASTM D150 at RT ASTM D150 at RT Pagers Method based on ASTM D257 ASTM D257 Surface Resistivity ~ 10 ¹¹ Ohm/sq Volume Resistivity ~ 10 ¹¹ Ohm-cm THERMAL CONDUCTIVITY, W/m-K ASTM D570 (Immersion Testing) 25 ASTM D149 ASTM D150 at RT O4.0 at 20 Hz (~2.6 at 1x10 ⁶ Hz) Volume Resistivity ~ 10 ¹¹ Ohm-cm THERMAL CONDUCTIVITY, W/m-K ASTM D570 at RT O.292	WATER ABSORPTION, Typical %	AMS 3568B (High Humidity)	<2
DIELECTRIC STRENGTH, kV/mm ASTM D 149 1.5 DIELECTRIC CONSTANT, K (DK) ASTM D 150 at RT C4.0 at 20 Hz (~2.6 at 1x106 Hz) Framework Rogers Method based on ASTM D 257 THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C ASTM D 150 at RT COEFFICIENT OF THERMAL EXPANSION, mm/mm C COEFFICIENT OF THERMAL EXPANSION, mm/mm C ASTM D 149 C4.0 at 20 Hz (~2.6 at 1x106 Hz) ASTM D 150 at RT ASTM D 150 at RT C4.0 at 20 Hz (~2.6 at 1x106 Hz) C4.0 at 20 Hz (~2.6		ASTM D570 (Immersion Testing)	25
DIELECTRIC CONSTANT, K (DK) ASTM D 150 at RT VOLUME RESISTIVITY (DRY AND 90% RH) Rogers Method based on ASTM D257 THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C ASTM 1530 at RT O.292 TMA at 5 C/min heating rate 0.00031	ELECTRICAL AND THERMAL		
VOLUME RESISTIVITY (DRY AND 90% RH) Rogers Method based on ASTM D257 Surface Resistivity ~ 10 ¹¹ Ohm/sq THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate 0.00031	DIELECTRIC STRENGTH, kV/mm	ASTM D 149	1.5
VOLUME RESISTIVITY (DRY AND 90% RH) Rogers Method based on ASTM D257 THERMAL CONDUCTIVITY, W/m-K ASTM 1530 at RT 0.292 COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate 0.00031	DIELECTRIC CONSTANT, K (DK)	ASTM D 150 at RT	~4.0 at 20 Hz (~2.6 at 1x10 ⁶ Hz)
THERMAL CONDUCTIVITY, W/m-K COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate Volume Resistivity ~ 10 ¹¹ Ohm-cm 0.292 TMA at 5 C/min heating rate	VOLUME RESISTIVITY (DRY AND 90% RH)	Rogers Method based on ASTM D257	Surface Resistivity ~ 10 ¹¹ Ohm/sq
COEFFICIENT OF THERMAL EXPANSION, mm/mm C TMA at 5 C/min heating rate 0.00031			Volume Resistivity ~ 10 ¹¹ Ohm-cm
·	THERMAL CONDUCTIVITY, W/m-K	ASTM 1530 at RT	0.292
HEAT CAPACITY, J/cm ³ K ISO/DIS 22007-2.2 (Hot Disk) 0.59	COEFFICIENT OF THERMAL EXPANSION, mm/mm C	TMA at 5 C/min heating rate	0.00031
	HEAT CAPACITY, J/cm ³ K	ISO/DIS 22007-2.2 (Hot Disk)	0.59

THICKNESS MM (IN)	PORON® V-0
5 (0.197)	
6 (0.236)	

Standard Product

- Additional technical information is available.
- All PORON Test Procedures are available for view. Please contact your Rogers Sales Engineer.



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