

PS-V0 SERIES

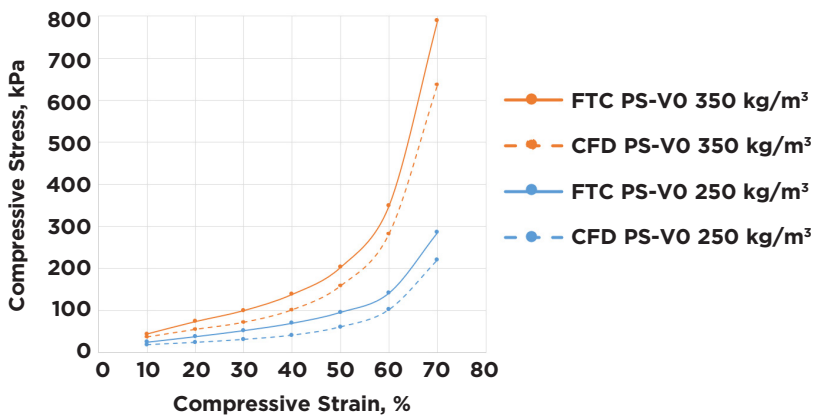
Norseal® PS-V0 Series, Micro-Cellular Polyurethane Foams

Saint-Gobain® Norseal PS-V0 Series are high-performance micro-cellular polyurethane foams, specifically designed to offer UL94 V-0 properties for EV and HEV battery sealing applications. By passing the vertical burn test, **Norseal** PS-V0 Series meets the stringent safety standard for most challenging environments and applications where flame and fire protection is of the highest importance. This compressible product has similar FTC and CFD properties to premium **Norseal** F-20 Silicone Foam, and also features excellent water-sealing properties and compression set.

Norseal PS-V0 Series for H(EV) and automotive sealing is specially designed to provide the following features:

- Flame retardant and halogen free, PS-V0 is tested in accordance to UL94 V-0 from 3.5 mm (0.14 in) up to 12 mm (0.47 in) thicknesses
- Excellent compression set resistance
- Compressed by 30%, PS-V0 is airtight up to a pressure of 10 kPa (1.5 psi)
- Excellent water-sealing properties
- Conformable and soft; will conform to uneven surfaces
- Provided in master roll stock for ease of conversion

FTC/CFD Values: Norseal PS-V0 Series



APPLICATIONS

- Protection for H(EV) battery packs
- Automotive sealing

Norseal PS-VO Series — Properties

Performance tests are run using standard test procedures. The values presented are typical values and should not be used for specification purposes.

Properties	Test Method	Typical Value	
PHYSICAL			
Density, kg/m ³ (lbs/ft ³)	ASTM D3574	250 (16)	350 (22)
Thickness, mm (in)		6.0 (0.24) to 12.0 (0.47)	3.5 (0.14) to 8.0 (0.31)
Thickness tolerance		±10%	
Typical Force to Compress, kPa (psi) 50 mm/min @ 30% compression	ASTM D1667	50 (7.3)	90 (13.1)
Typical Compression Force Deflection, kPa (psi) 50 mm/min @ 30% compression	ASTM D1667	30 (4.4)	70 (10.2)
Tensile Strength, kPa (psi) 500 mm/min	ISO1798	150 (21.76)	300 (43.5)
Elongation 500 mm/min	ISO1798	45%	
Water Absorption (uncompressed) (%)	ISO 6916-1	< 15	< 10
Compression Set (%) 70% compression @ 70°C (158°F) for 7 days 50% compression @ 90°C (194°F) for 7 days	ASTM D1667	< 10	< 10

THERMAL & FLAME

Flame Resistance	UL94 V	VO File number: E494597	
Limit Oxygen Index	ISO 4589-2	30	
Fire Resistance	EN 45545	HL2	
Thermal Conductivity (W/m.K)	ISO 8302	0.055	0.058
Temperature Resistance, °C (°F)	SAE J-2236 for 1008 hrs. SAE J-2236 for 168 hrs.	90 (194) 121 (250)	

ELECTRICAL

Surface Resistivity, (ohm)	ASTM D257	3.4 × 10 ¹¹	3.4 × 10 ¹⁰
Volume Resistivity, (ohm.cm)	ASTM D257	2.8 × 10 ¹¹	8.7 × 10 ¹⁰
Breakdown strength, AC, kV/mm (V/mil)	ASTM D149, Method B, @ 10%	1.3	5.9
Breakdown strength, DC, kV/mm (V/mil)	ASTM D3755 @ 10%	1.8	7.1

Shelf Life

Foam without adhesive: 24 months from the date of sales when stored at 21°C (70°F), 50% relative humidity, when product is stored in its original packaging, away from direct sources of heat and sunlight.

Foam with adhesive: 12 months from the date of sales when stored at 21°C (70°F), 50% relative humidity, when product is stored in its original packaging, away from direct sources of heat and sunlight.



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