



FS1000 SERIES

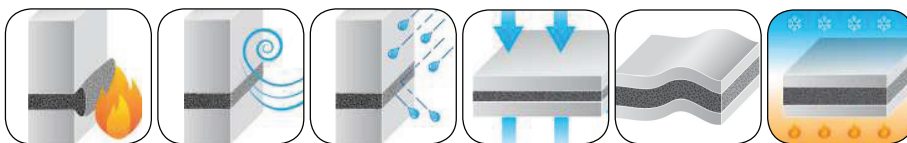
Intumescent, Airtight, Watertight and Resilient Sealing Foam

Saint-Gobain® Norseal® FS1000 Series is manufactured by **Saint-Gobain** Performance Plastics Corporation, Tape Solutions business, and is a proprietary, high-performance foam tape with a unique combination of sealing properties. FS1000 is expandable and fire resistant, blocking smoke, air and water. In its natural state, FS1000 is soft, conformable, and easy to attach to complex surfaces.

- Expandable and fire resistant. When heated to more than 200°C, FS1000 will expand and form a fire resistant char, blocking fire, smoke and hot gases.
- Airtight. Compressed by 30%, FS1000 is airtight up to a pressure of 1000 Pa, depending on the surface of the application.
- Watertight. FS1000 is watertight when compressed by 30%.
- Compressible and resilient. It can be easily compressed and comes back to its original thickness after compression.
- Vibration damping. As a result of its resilience, FS1000 is able to damp vibrations and decouple two elements.
- Conformable. Soft; will conform to uneven surfaces.
- Easy installation. Produced in various thicknesses, delivered with or without adhesive on one side.
- Contains no halogen compounds, and there are no concerns of toxic gas emissions when heated. The material does not disperse dust during installation, so it is safe for workers and other people nearby.

APPLICATIONS

- Construction: joints in walls, floors, ceilings, windows and doors, HVAC and many other critical areas requiring fire compartmenting
- Automotive: protection of fuel tanks, (H)EV battery packs, etc.
- Aerospace: seats, freight compartments and other critical areas



Intumescent

Airtight

Watertight

Compressible
and resilient

Conformable

Thermally
insulating

Norseal FS1000 Series — Properties

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

Category	Property		Standard	Unit	Value
Thickness			-	mm (in)	4.5 - 6.0 - 9.0 (.18 - .24 - .35)
Useable width			-	mm	Max. 1360
Density			ISO 6916-1	kg/m3	240
Dynamic properties	Force to Compress	@30%	ASTM D1667	kPa	11
	Compression Force Deflection	@30%			7.5
	Tensile Strength		ISO 1798	kPa	180 - 200
	Elongation at Break			%	85 - 120
	Compression Set @15 days at 50% at 23°C		ASTM D1667	%	5
Combustion	UL94 V		UL94 V	Classification	VO File number: E494597
	Limit oxygen index		ISO 4589-2		30
	EU small flame test		ISO 11925-2	Equivalent classification	B
	Expansion ratio (volume) @0% compression		PRT129	%	200
	Temperature of activation		PRT130	°C	200
	Fire Resistance		EN 45545	Classification	HL2
	Fire Resistance		EN 1366-4/rating EN 13501-2	Classification	EI45-EI180 depending on the configuration
Insulation properties	Thermal Conductivity		ISO 8302	W/m.K	0.039
Tightness properties	Water tightness	30% compression	NTP 38* (U-Test 100mm)	Hours before leakage	> 72
	Air tightness	1000 Pa 30% compression	PRT128*	Air leakage in ml/m.min	0

* NTP refers to Norton Test Procedure; PRT refers to Internal Technical Procedure.

Shelf Life

FS1000 with adhesive: 12 months from the date of sale. FS1000 without adhesive: 18 months from the date of sale. Storage conditions should remain below 30°C without exposure to sunshine.

IMPORTANT: It is the user’s responsibility to ensure the suitability and safety of Saint-Gobain products for all intended uses and that the materials to be used comply with all applicable regulatory requirements. Saint-Gobain assumes no responsibility for any product failures that occur due to your actions or inactions, including your use, design, fabrication or application of the products into which the materials are incorporated.

WARRANTY: This document should not be considered a warranty or a guarantee. The descriptions of the Product provided hereinabove may vary based on specifications requested and testing protocols. Typically, Saint-Gobain warrants that product(s) will meet mutually agreed specifications at delivery and Saint-Gobain honors any breach of warranty claims for six (6) months from delivery of the products. If a product is determined to be nonconforming with its warranty, Saint-Gobain’s sole obligation is, at its option, to either replace the nonconforming products or reimburse the purchase price for the same.

The only obligation under any applicable product warranty will be to replace any portion proving defective, or at our option, to refund the purchase price thereof. SAINT-GOBAIN DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE.

