

BONFORT TECHNICAL DOCUMENT

BFT-6012MS Multi-Purpose Universal Roof MS Sealant

TECHNICAL DATA SHEET

BFT-6012MS Multi-Purpose Universal Roof MS Sealant

Single-component moisture-curing modified silane polymer roof sealant for exposed joints, flashing details and roof penetrations

PRODUCT DESCRIPTION

BFT-6012MS is a one-component, moisture-curing modified silane polyether (MS polymer / SMP) roof sealant formulated for weatherproof sealing of lap joints, terminations, penetrations, flashing details and miscellaneous roof repairs. The cured sealant combines permanent elasticity with broad substrate adhesion, UV stability and low-VOC performance in a solvent-free, isocyanate-free formulation.

This Technical Data Sheet is arranged in a U.S.-market submittal style and emphasizes the properties commonly reviewed by distributors, contractors and consultants, including movement capability, skin time, cure rate, tensile / elongation, Shore A hardness, sag resistance, VOC level and substrate compatibility. Typical values shown are representative laboratory or quality-control targets used for product positioning and technical reference.



Code	BFT-6012MS
Product Name	Multi-Purpose Universal Roof MS Sealant
Material Type	One-component moisture-curing modified silane polyether (SMP / MS polymer) sealant
Color	White standard; custom colors available upon request
Packaging	300 mL cartridge and 590 mL sausage / unipack
Primary Uses	Roof joint sealing, flashing details, penetrations, gutter seams, coping joints, lap edge repairs and general exterior weatherproofing
Compatible Substrates	Galvanized steel, aluminum, painted metal, concrete, masonry, FRP, PVC, selected single-ply membranes, SPF accessories and prepared asphaltic details with appropriate primer evaluation

FEATURES / BENEFITS

- Moisture-curing MS polymer technology delivers permanent elasticity with broad adhesion and low odor in a solvent-free, isocyanate-free formulation.
- Excellent UV, rain and weather resistance for exposed roof joints and exterior sealing applications.
- Paintable after cure and non-staining, with no silicone oil bleed or plasticizer migration typical of some other chemistries.
- Tools easily, exhibits very low sag in vertical joints and supports clean bead formation on sloped or detailed roof areas.
- Compatible with many common roof and flashing substrates, reducing the need for multiple sealant types in field maintenance work.
- Suitable for contractors seeking a high-performance alternative positioned between commodity roof sealants and premium specialty joint compounds.

TYPICAL USES

- Sealing roof penetrations, curbs, vent pipes, edge metal, counterflashings, gutters, parapet coping and vertical-to-horizontal transitions.
- Weatherproofing joints in metal roofing, low-slope roof details, equipment supports, skylight frames and accessory terminations.
- General exterior bonding / sealing on concrete, masonry, coated metals and miscellaneous roof repair details.
- Maintenance and retrofit work where paintability, UV durability and broad substrate compatibility are required.

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TECHNICAL DATA / TYPICAL PROPERTIES

Property	Test Method / Basis	Typical Value
Packaging Sizes	Factory package	300 mL cartridge; 590 mL sausage / unpack
Shelf Life	Unopened sealed package	18 months when stored cool and dry at 40°F to 90°F (4°C to 32°C)
Specific Gravity	ASTM D1475 / internal QC	1.42-1.46 g/cm ³ typical
Skin-Over Time	ASTM C679	25-40 minutes typical at 77°F (25°C), 50% RH
Tack-Free Time	ASTM C679 / field reference	60-90 minutes typical at 77°F (25°C), 50% RH
Cure Rate	Internal cure-depth reference	Approx. 1/8 in (3 mm) per 24 hours at 77°F (25°C), 50% RH
Sag / Slump	ASTM D2202	Pass; non-sag, < 2 mm typical
VOC Content	EPA Method 24	<= 25 g/L typical
Shore A Hardness	ASTM C661 / D2240	30-35 typical after full cure
Movement Capability	ASTM C719 positioning	±25% typical application positioning

PHYSICAL / PERFORMANCE CHARACTERISTICS

Property	Test Method	Typical Value
Tensile Strength	ASTM D412	1.25-1.45 MPa (181-210 psi) typical
Elongation at Break	ASTM D412	350-450% typical
100% Modulus	ASTM D412	0.45-0.60 MPa typical
Tear Strength	ASTM D624	22-28 lbf/in typical
Elastic Recovery	ASTM C794 / internal recovery screening	>= 85% typical
Peel Adhesion to Aluminum	ASTM C794	Pass; cohesive / mixed failure mode typical after cure
Low Temperature Flexibility	ASTM D522	Pass at -40°F (-40°C), no cracking
Service Temperature Range	Application positioning	-40°F to 194°F (-40°C to 90°C), intermittent peak to 248°F (120°C)
Water Resistance	TT-C-555 style screening	Pass after cure; suitable for intermittent weather exposure
Weather / UV Resistance	Accelerated weathering reference	No significant cracking, chalking or loss of elasticity in representative exposure
Paintability	Field / coating compatibility screening	Can be topcoated with many water-based and acrylic coatings after surface cure

APPLICATION INFORMATION / LIMITATIONS / DISCLAIMER

Application Method	Manual, pneumatic or battery-operated caulking gun. Tool immediately after application using approved non-oily tooling aids.
Joint Consumption	Approx. 0.12 L per linear meter for a 10 mm × 12 mm joint profile. A 300 mL cartridge yields approx. 2.5-3.0 m; a 590 mL sausage yields approx. 4.8-5.5 m, depending on joint geometry.
Application Conditions	Ambient air: 40°F (4°C) min. to 100°F (38°C) max. Substrate: 40°F (4°C) min. to 120°F (48°C) max. Relative humidity: 30% to 85% recommended.
Surface Preparation	Substrates must be clean, dry, structurally sound and free of oil, dust, frost, loose coatings, release agents and standing water. Porous or difficult substrates may require field primer evaluation before full-scale use.
Limitations	Not intended for permanent water immersion, expansion joints with movement beyond design capacity, heavily trafficked surfaces, or direct contact with uncured asphalt, certain solvent-sensitive plastics or incompatible sealant residues.
Storage / Transportation	Store unopened packages in a dry, shaded area away from direct sunlight and excessive heat. Product is generally shipped as non-dangerous goods under normal transport conditions.
Legal Note	Values shown are representative laboratory or quality-control values prepared for technical submittal formatting and product positioning. Final published values, approvals and project suitability should be confirmed with current BONFORT documentation prior to formal release or specification use.