

BONFORT TECHNICAL DOCUMENT

BFT-608TPO Reinforced TPO Roofing Membrane

60 mil (1.5 mm) polyester reinforced TPO single-ply membrane for low-slope commercial roofing

TECHNICAL DATA SHEET

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PRODUCT DESCRIPTION

BFT-608TPO is a polyester scrim reinforced thermoplastic polyolefin (TPO) roofing membrane designed for mechanically fastened, adhered and induction-weld single-ply roof systems. The membrane features a dual-layer co-extruded TPO formulation with consistent thickness above and below the scrim to support strong weld performance, puncture resistance, dimensional stability and exposed weather durability.

This Technical Data Sheet is prepared in a U.S.-market format and emphasizes the properties typically reviewed by roofing contractors, consultants and submittal departments, including ASTM D6878 alignment, thickness above scrim, tensile and tear values, puncture resistance, seam performance, low-temperature flexibility and cool-roof reflectance data. Typical values shown are representative laboratory or quality-control targets for product positioning and technical submittals.



Code	BFT-608TPO
Product Name	Reinforced TPO Roofing Membrane
Product Type	60 mil polyester reinforced TPO thermoplastic single-ply roof membrane
Color	White standard; custom grey / tan / special colors available on request
Construction	Dual-layer co-extruded TPO with internal polyester scrim reinforcement; nominal 13 mil top and 13 mil bottom thickness above scrim
Primary Systems	Mechanically fastened, fully adhered and induction-weld roofing systems for low-slope commercial roofs
Compatible Substrates	Steel deck, concrete, wood structural panels, approved roof insulation boards, selected recover surfaces, SPF, metal and prepared asphaltic systems with proper separation/primer design

FEATURES / BENEFITS

- Polyester scrim reinforcement improves wind uplift design capacity, field handling strength, puncture resistance and long-term dimensional stability.
- Heat-weldable lap seams create a monolithic waterproof assembly without dependence on liquid seam adhesives or plasticizer-containing compounds.
- TPO chemistry offers strong UV, ozone and weather resistance with broad compatibility across common low-slope roof system configurations.
- Consistent thickness above and below the reinforcement supports balanced durability, reliable hot-air welding and enhanced membrane service life.
- Reflective white surface provides high initial and aged solar performance to support cool-roof project requirements and energy-conscious roof design.
- Formulated to maintain low-temperature flexibility and to resist heat aging, chemical exposure and normal rooftop weather cycling.

TYPICAL USES

- Single-ply roofing for warehouses, factories, schools, retail buildings, hospitals, logistics centers and PV-ready roof projects.
- Mechanically fastened field membranes, parapets, roof penetrations, gutters, equipment curbs and flashing details.
- New construction and re-roof / recover low-slope commercial roof assemblies using approved system accessories.
- Exposed roof waterproofing where hot-air welded seams, cool-roof performance and reinforced membrane durability are required.

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TECHNICAL DATA SHEET CONTENT

TECHNICAL DATA - PRODUCT INFORMATION

Property	Test Method / Basis	Typical Value
Nominal Thickness	ASTM D751	60 mil (1.52 mm) nominal
Thickness Above Scrim	ASTM D7635	Total 26 mil typical; 13 mil top + 13 mil bottom
Membrane Classification	ASTM D6878 alignment	Reinforced TPO membrane, Type III performance style positioning
Standard Roll Widths	Factory specification	10 ft (3.05 m) and 12 ft (3.66 m) typical
Standard Roll Length	Factory specification	100 ft (30.48 m)
Shelf Life / Storage	Indoor covered storage	36 months recommended when stored dry, protected and elevated from ground contact
Surface Finish	Product design	Smooth heat-weldable exposed surface with reflective white top ply

PHYSICAL / MECHANICAL PERFORMANCE

Property	Test Method	Typical Value
Breaking Strength, MD / CMD	ASTM D751 Grab	390 lbf / 340 lbf typical
Elongation at Reinforcement Break	ASTM D751	30% typical
Base TPO Compound Elongation	ASTM D412	>= 520% typical compound value
Tear Strength, MD / CMD	ASTM D751 Tongue Tear	70 lbf / 130 lbf typical
Puncture Resistance	FTM 101C Method 2031	380 lbf (172 kg) typical
Dynamic Puncture Resistance, MD / CMD	ASTM D5635	40 J / 50 J typical
Hydrostatic Resistance / Burst	ASTM D751	430 psi typical
Low Temperature Brittleness	ASTM D2137	-40°F (-40°C), no cracking
Linear Dimensional Change	ASTM D1204, 70°C / 6 h	<= 0.4% typical
Water Absorption	ASTM D471, 70°C / 7 d	0.7% typical
Ozone Resistance	ASTM D1149	No cracking or deterioration
Heat Aging Retention	ASTM D573, 115°C / 32 weeks	Approx. 100% tensile and elongation retention, typical QC target
Water Vapor Permeance	ASTM E96 BW	0.08 perms typical

SEAM / REFLECTIVE PERFORMANCE

Property	Test Method	Typical Value
Field Weld Seam Peel Strength	ASTM D1876 / D751 style verification	135 lbf typical; film tear / substrate tear mode
Initial Solar Reflectance (White)	ASTM C1549	0.835 typical
Initial Thermal Emittance	ASTM C1371	0.84 typical
Initial Solar Reflectance Index (SRI)	ASTM E1980	103 typical
Aged Solar Reflectance	ASTM C1549	0.73-0.75 typical
Aged Thermal Emittance	ASTM C1371	0.81 typical
Aged Solar Reflectance Index (SRI)	ASTM E1980	72-78 typical
Weathering / UV Resistance	Accelerated exposure reference	No significant chalking, embrittlement or seam degradation under representative weathering evaluation

APPLICATION INFORMATION / LIMITATIONS / DISCLAIMER

Installation Conditions	Membrane and substrate surface temperature: 0°F (-17°C) to 120°F (48°C). Ambient reference: 41°F (5°C) to 100°F (38°C). For adhered systems, control humidity and substrate dryness according to adhesive manufacturer requirements.
Welding Guidance	Clean and dry lap areas before welding. Typical lap width: 4 in (100 mm). Field welding temperature and speed must be adjusted to weather, substrate and equipment, with seam probing after cooling.
Surface Preparation	Substrates must be structurally sound, dry and free of dust, oil, grease, frost, loose coatings, mold and contaminants. Wet or damaged roof components must be repaired or replaced before membrane installation.
System Options	Mechanically attached, fully adhered and ballasted systems may be used with approved BONFORT accessories and system design. Project-specific assembly approvals, wind uplift and fire classifications must be confirmed separately.
Limitations	Not recommended for permanent immersion, long-term heavy traffic without protection, or direct installation over unstable / contaminated substrates. Asphaltic materials may require separator sheet or bleed-blocking design.
Legal Note	Values shown are representative laboratory or quality-control values for technical submittal use. Final published values, code listings, certifications and warranty terms should be confirmed with current BONFORT documentation before formal release or project submission.