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Bonfort Waterproof Materials Manufacturing Co., Ltd.

BONFORT TECHNICAL DOCUMENT

BFT-604P Exposed Polyurethane Coating

One-component, high-solids, UV-resistant liquid polyurethane membrane for exposed exterior waterproofing

TECHNICAL DATA SHEET

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PRODUCT DESCRIPTION

BFT-604P is a one-component, cold-applied exposed polyurethane coating designed to form a seamless, elastic and UV-resistant waterproofing membrane on exterior roof and podium substrates. The product is ready to use, easy to detail around complex penetrations, and formulated for durable performance in hot, tropical and variable weather exposure when applied over properly prepared substrates.

Code	BFT-604P
Product Name	Exposed Polyurethane Coating
Material Type	One-component high-solids moisture-curing polyurethane waterproofing membrane
Color	Tan / light grey / custom colors available
Main Components	Polyether polyol, UV-stabilized polyurethane resin, barium sulfate, titanium dioxide, mineral fillers and functional additives.
Primary Function	Exposed roof waterproofing, reflective/colored top coating and liquid-applied membrane for approved exterior roof assemblies
Use Condition	Exterior professional use only. Substrate must be clean, dry, sound and free of rising moisture.

FEATURES / BENEFITS

- One-component ready-to-use system reduces mixing errors and simplifies field application by brush, roller or airless spray.
- High-solids formulation builds a seamless waterproof membrane with reduced shrinkage compared with lower-solids coatings.
- Excellent elasticity and crack-bridging support, with typical elongation around 450% under laboratory testing.
- Very good UV resistance and color stability for exposed exterior roofing service.
- Flexible at low temperatures and suitable for application in cool conditions above 35°F (2°C) when surface is dry and above dew point.
- Good tear strength, abrasion resistance and Shore A hardness balance for exposed roof terraces, walkways and detailing areas.

TYPICAL USES

- Exposed waterproofing for flat and sloped roofs, podium decks, roof terraces and pedestrian maintenance walkways.
- Restoration coating for prepared profiled metal roofs and selected existing roof coating systems.
- Reinforced waterproofing layer for roof seams, details, penetrations, drains, skylights, parapets and complex geometries.
- Waterproofing over properly prepared concrete, cementitious screeds, asphalt felt/coatings, brick, stone, asbestos cement, metal, wood and unglazed ceramic tile after primer/adhesion testing.
- New construction and renovation projects requiring cold-applied, flame-free liquid waterproofing.

TECHNICAL DATA - TYPICAL PROPERTIES

Property	Test Method / Condition	Typical Value
Packaging	Factory package	5 US gal / 18.9 L pail; approx. 26.5 kg net weight
Chemical Base	Formulation basis	Moisture-curing polyurethane, polyether-polyol based
Solids by Volume	ASTM D2697 / ISO 3251	Approx. 88% typical
VOC Content	ASTM D2369 / ASTM D3960	< 100 g/L typical target; confirm by current SDS/QC
Density	ISO 2811-1	Approx. 1.40 kg/L at 77°F (25°C)
Viscosity	Brookfield, 77°F (25°C)	Approx. 6,000-10,000 cP, thixotropic brush/roller grade
Skin / Surface Film Time	73°F (23°C), 50% RH	2-6 hours typical; affected by humidity and film thickness
Rain Resistant	73°F (23°C), 50% RH	Approx. 6-8 hours typical after application
Recoat Window	73°F (23°C), 50% RH	12-24 hours typical; clean surface before recoat
Full Cure	73°F (23°C), 50% RH	24-48 hours typical, depending on film build and conditions
Tensile Strength	ASTM D412 / ISO 37	580-725 psi (4.0-5.0 MPa) typical
Elongation at Break	ASTM D412 / ISO 37	400-500% typical
Tear Strength	ASTM D624 / ISO 34	25-35 N/mm typical
Hardness	ASTM D2240	Shore A 50-60 typical
Adhesion to Concrete	ASTM D4541	>= 1.5 MPa substrate-dependent; test area required
Recommended DFT	System specification	40-60 mils total DFT for standard exposed waterproofing systems
Coverage Rate	Field application	Approx. 20-30 ft²/gal at 55-80 mils WFT; rough surfaces require more material

Note: Typical values are intended for U.S.-market product positioning and technical submittals. Confirm final published values with current QC data, SDS and third-party testing before warranty, code or certification claims.

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TECHNICAL DATA SHEET CONTENT

APPLICATION INFORMATION

Substrate Condition	Substrate must be clean, dry, sound and free of oil, grease, dust, laitance, rust scale, loose coating, ponded water and other bond-breaking contaminants.
Application Temperature	Ambient and substrate temperature: 35°F-95°F (2°C-35°C). Surface temperature must be at least 5°F (3°C) above dew point. Relative humidity: 20%-85% preferred.
Mixing	Ready to use. Stir slowly for at least 2 minutes until color and fillers are uniform. Avoid high-speed mixing and air entrapment. Do not dilute with solvent.
Application Method	Apply by brush, roller, squeegee or airless spray. Use reinforcement fabric at seams, cracks, penetrations, transitions and high-movement details where specified.
Film Build	Apply to the specified wet-film thickness and verify with a wet-film gauge. For reinforced systems, embed fabric into the wet coating and back-roll to remove wrinkles and voids.
Recoat / Tie-in	Recoat after the surface is cured enough to accept traffic and clean enough to bond. If the surface becomes contaminated or aged, clean and reactivate/prime as required by project specification.
Cleanup	Clean tools with approved polyurethane cleaner, xylene or equivalent before curing. Cured material must be removed mechanically.

SUBSTRATE COMPATIBILITY

- Concrete, cementitious screeds, brick, stone, asbestos cement, metal, wood and unglazed ceramic tile after surface preparation and primer selection.
- Asphalt felt/coatings and selected existing coatings after compatibility review and adhesion testing.
- For metal roofs, remove rust and loose coating and prepare to a bright, sound surface where corrosion protection is required.
- For concrete, new concrete should be fully cured and pull-off strength should meet project requirements before coating.

STORAGE AND TRANSPORTATION

Shelf Life	12 months from production date in unopened original container when stored properly.
Storage Conditions	Store tightly sealed, dry and protected from direct sun, heat, open flame and moisture. Recommended storage temperature: 40°F-95°F (4°C-35°C).
Transportation	Transport in sealed, upright containers in accordance with the current SDS and local regulations. Protect from freezing and container damage.
Package	5 US gal / 18.9 L pail; approx. 26.5 kg net weight.

ENVIRONMENTAL, HEALTH AND SAFETY

- For complete handling, toxicology, transportation and disposal information, read the current Safety Data Sheet before use.
- Professional use only. Wear protective gloves, safety glasses or goggles, protective clothing and appropriate respiratory protection where ventilation is insufficient.
- Use only with adequate ventilation. Avoid direct skin and eye contact. Do not ingest.
- Keep containers tightly closed when not in use. Keep out of reach of children.

LIMITATIONS

- Exterior use only. Do not apply to wet, frozen, unstable, contaminated or moisture-rising substrates.
- Do not apply near operating HVAC air intakes. Shut down and seal air intakes before application where overspray or odor exposure may occur.
- Do not dilute with solvent unless specifically approved in writing by BONFORT technical service.
- Do not use as a heavy-traffic wearing surface without a specified protection or aggregate-reinforced traffic system.
- Cure time, adhesion and appearance depend on substrate condition, film thickness, temperature, humidity and ventilation.

LEGAL DISCLAIMER

Prior to use, applicators shall review the current BFT-604P Technical Data Sheet, SDS and label instructions. Product selection, substrate preparation, system design and jobsite application risk are the responsibility of the contractor, applicator and project owner. Published data are typical reference values only; actual performance may vary with substrate, conditions and application. Contact BONFORT technical service for current information before final specification or customer submittal.