

FIRESAFE™ 300

DESCRIPTION:

Firesafe 300 is a chemical and water resistant, polyurethane modified acrylic elastomeric coating. Applied as a single component liquid which cures to a high reflective, flexible coating. Applications include; roofing, corrosion protection, storage and process tanks, piping, metal and wood structures, decks and walkways. Check with your **Star Polymers** representative for primer recommendations.

Physical Property	Test	Result
Solids by Volume	ASTM D-1653	62.0 ± 2%
Solids by Weight	ASTM D-1644	66.0 ± 2%
Tensile Strength (psi)	ASTM D-412	1000 psi
Elongation	ASTM D-2370	400%
Adhesion to Concrete; psi	ASTM C-907	145 psi
Impact Resistance	CGSB37 – GP-56	168 in/ lb.
Low Temp. Flexibility; -15°F, ½" mandrel, 1000 hrs.	ASTM C-734	Pass
Hardness (Shore 00)	ASTM D-2240	85-90
Hardness (Shore A)		60-65
Hardness (Shore D)		30-35
Reflectivity	ASTM C-1549	89%
Emittance	ASTM C-1371	.90
UV Resistance@ 1000 hrs.	ASTM G-155	Pass; Retain >90% Original Tensile
Viscosity; Brookfield 5000 – 8000 cps		Specific Gravity 1.2

Features and Benefits

- A high quality, VOC free, solvent free, single component, water-based emulsion. Modified with various polymer additives.
- Designed to provide a long-lasting flexible membrane that will retain this flexibility even in the harshest climatic conditions.
- Formulated using specialized pigments and biocides to provide maximum UV resistance and minimize discoloration from dirt accumulation.
- Has excellent adhesion to most surfaces.
- Chemical Resistance to most organic and inorganic solutions, including petroleum hydrocarbon products.
- **Fire Rating: UL and FM rated, Class A**
- Reduces Energy consumption.

Colors and Packaging

- Standard Colors; White, Gray and Tan.
- Custom Colors available for an additional charge.
- Packaging: 5 gal. pail, 55 gal. drum and 275 gal. tote.

Clean Up and Shelf Life

- Clean Up; Water
- 12 months (Unopened) *When stored between 40° F and 85°F (5°C – 30°C).



SURFACE PREPARATION

General: Surfaces to be coated should be dry, free of dust, dirt, oil, loose granules, gravel, peeling coating and other foreign matter. All wet insulation or foam should be removed and replaced with like materials.

For optimal results power wash all surfaces with a minimum of 2000 psi using a wide fan tip. All necessary precautions should be taken to avoid damage to the roof system. Mildew should be treated with a bleach solution (1 part bleach, 2 parts water) and rinsed thoroughly. Patch and repair cracks or holes with appropriate sealants or caulking materials.

Masonry: Allow fresh masonry to cure a minimum of 30 days, prime with General Primer 380 (GP-380).

Metal: Rusty metal must be cleaned with a wire brush and primed with Metal Primer 410 (MP-410).

EPDM: Prime with EPDM Primer-Cleaner (EPC-640), ensure no primer residue remains.

PVC, Hypalon, aged TPO: Prime with PVC-TPO Primer 450 (PTP-450).

Polyurethane foam: Apply directly (must be coated within 24 hours of installation).

Granulated or Smooth Asphalt: Base coat with Bleed Block Primer 550 (BBP-550).

Other: For other substrates refer to the Star Polymers Primer Recommendation table.

APPLICATION

This product may be brushed, rolled or sprayed on a clean, dry surface. For details see Equipment Recommendations at the end of this sheet. If sprayed, material should be at least 75°F. Before applying additional coat, the previous coat must be completely dry and cured. If any contamination is present on the cured surface it must be washed and completely dry before application of subsequent coats.

Application Properties

Dry Time (75° F)	90 mins @ 50% humidity
Recoat window	>6 hrs
Complete Cure	30 days

COVERAGE RATE

Cured D Membrane mils; DFT (Dry Film Thickness)	Coverage (square feet/ per US Gallon)
40 mils	30 sq. ft./ gal.
60 mils	15 sq. ft./ gal.
80 mils	10 sq. ft./ gal.

PONDED WATER

- **Star Polymers** warranties do not cover damage due to ponding water.
- The National Roofing Contractors Association considers ponding water on any roof unacceptable.
(See the NRCA Roofing and Waterproofing Manual).

For Your Protection: The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of **Star Polymers**. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by **Star Polymers** will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, **Star Polymers makes no warranty of any kind, express or implied**, other than that the material conforms to its applicable current Standard Specifications. **Star Polymers** hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Star Polymers for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

ENVIRONMENTAL CONDITIONS

This product cures by water evaporation only. Product must not be applied when the ambient temperature is below 40°F or if there is any possibility it could fall below 32°F within 24 hours of application. Application is not recommended if rain or dew is likely to occur before product dries. In high humidity conditions late afternoon applications should be avoided as overnight dew formation on uncured surface can cause coating wash-off. On marginal days, multiple applications of thin coats can ensure proper drying before rain or overnight freezes.

LIMITATIONS

Surface must be clean and dry. Application is not recommended on roofs with slopes less than 1/8 in 12 or where ponded water is present. Do not apply over wet substrates or when inclement weather is imminent. Complete cure of **FS-200** requires complete evaporation of water. Cool temperatures and high humidity retard cure.

SAFE PRACTICES

This product is designed for professional installation. Before working with this product, you must read and become familiar with the available information on its risks, proper use and handling. Information sources include but are not limited to MSDS and product labels. More resources are available at polyurethane.org, sprayfoam.org, polygreensolutions.com or by contacting **Star Polymers** directly.

EQUIPMENT

Minimum requirements:

Brush

- Synthetic filament

Roller

- 1¼" nap roller

Spray

- 30:1 fluid to air ratio capable pump
- 2 1/2 gallons or more per minute (continuous)
- Filter screen 30 mesh or larger
- Hose rated to 2x maximum pump pressure
- Hose lining should be compatible with coating and required cleanout materials
- Hose lengths: (Largest diameter at pump)
 - 3/8 minimum 6 ft wip
 - 3/8 minimum I.D. up to 75 feet
 - 1/2 minimum I.D. up to 200 feet
 - 3/4 minimum I.D. over 200 feet
- Spray gun: Graco Hydra Mastic or equivalent
- Spray Tip:
 - Reversible self-cleaning type
 - Orifice size of .027 to .039
 - Fan angle of 40° to 50°
- Always use components rated for pump pressures.