NanoTech Materials All Weather Coat

Crosslinking Acrylic Latex Elastomer

NanoTech Materials All Weather Coat is a high-performance, plasticizer-free, single-component, water-based, 100% acrylic elastomeric roof coating enhanced with a specially engineered, advanced cross-linking resin. It can be applied by spray, brush, or roller on various commercial roof systems. The formulation delivers exceptional dirt pickup resistance, offering one of the highest 3-year solar reflectance values of any product on the CRRC listings. Its ultra-high solids content means lower application rates to achieve required dry mils, while industry-leading tensile and elongation properties contribute to an extremely durable and long-lasting membrane with exceptional resistance to weathering. Formulated with special pigments and biocides for maximum UV resistance, it utilizes a polymer technology that sets the standard for roof coating resistance to discoloration from dirt accumulation. This innovative, eco-friendly product creates a seamless and durable protective barrier against the elements, adapting to the expansion and contraction of your roof. It has excellent adhesion to most surfaces including metal, most single-ply roofs, wood, and concrete, and has the unique ability to breathe, providing a completely watertight membrane while allowing trapped moisture to escape.

OUTSTANDING FEATURES:

- Highly durable: puncture- and tear-resistant without requiring fabric reinforcement
- Warranties up to 20 years
- Hail-resistant warranties for up to 2 inches
- UV stable
- Environmentally responsible manufacturing: made with non-toxic materials, low VOCs, and packaged in lined drums to minimize waste
- High solar reflectivity
- Easy to install and maintain
- Efficient: high solids formulation allows for thicker application in fewer coats
- Available in 5 standard stocked colors
  - Custom colors available at additional cost with minimum order quantity
- Unique cross-linking properties
  - After drying, a chemical reaction creates strong internal bonds along each polymer chain, forming a single large molecule that enhances durability

RECOMMENDED USES:

NanoTech Materials All Weather Coat is designed as a protective membrane for most roofing surfaces including galvanized metal, concrete, PVC, Hypalon, EPDM, polyurethane foam, and primed smooth and granulated asphaltic surfaces. Consult NanoTech Materials for primer recommendations.

TECHNICAL DATA:

Property	Test Method	Result
Volume Solids	ASTM D-1653	62.0 ±2%
Weight Solids	ASTM D-1644	72.0 ±2%
Tensile Strength	ASTM D-2370	500 ±50 PSI
Elongation	ASTM D-2370	600 ±50%
Permeability	ASTM D-1653	14 ±3
Tear Resistance	ASTM D-624	133 ±3 PSI
VOC	EPA Method 24	< 50 g/Liter

Low Temperature Flexibility	-15°, 1/2 in mandrel, 1000 hrs weathering	Pass
Hardness (Shore A)	ASTM D-2240	50–55
Reflectivity	ASTM C-1549	87%
Emittance	ASTM C-1371	.90
SRI	Calculated	107
Viscosity		110 ±10 KU
Density		11.5 lbs per gallon
Vehicle Type		100% Crosslinking Acrylic
Flashpoint		None
Shelf Life	Stored 40°F–70°F (4°C–21°C)	24 months (Unopened)
Clean Up		Water

Meets ASTM D6083 requirements. UL Class A fire rated. California Energy Commission Title 24 qualified. Meets California SCAQMD requirements for VOCs. Miami Dade approved.

COLORS / PACKAGING & SHIPPING INFORMATION:

Colors: Available in 5 standard stocked colors. Custom colors available at additional cost with minimum order quantity.

Container Size	Shipping Class
55 Gallon drum (208.2 liters)	Class 55
5 Gallon pail (18.9 liters)	Class 55

SURFACE PREPARATION:

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 2,000 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.

Substrate-specific requirements:

- Masonry: Allow fresh masonry to cure a minimum of 30 days before application.
- Metal: Rusty metal must be cleaned with a wire brush and primed with an appropriate metal primer.
- EPDM: Prime with appropriate EP primer/cleaner; ensure no primer residue remains.
- PVC, Hypalon, aged TPO: Prime with appropriate single-ply primer.
- Polyurethane foam: Apply directly (must be coated within 24 hours of installation).
- Granulated Asphalt: Base coat with appropriate granulated asphalt base coat.
- Smooth Asphalt: Base coat with appropriate smooth asphalt base coat.
- Other substrates: Consult NanoTech Materials for primer recommendations.

APPLICATION:

This product may be brushed, rolled, or sprayed on a clean, dry surface. If sprayed, the material should be at a minimum temperature of 75°F. Before applying an 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:

Yield (1 gal to 100 sq ft)	8.8 dry mils
Coverage Rate	1.5 gal per 100 sq ft (24 wet mils)
Dry Time (75°F)	90 mins @ 50% humidity
Recoat Window	> 6 hrs
Complete Cure	30 days

ENVIRONMENTAL CONDITIONS:

This product cures by water evaporation only. The product must not be applied when the ambient temperature is below 50°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 the product dries.

In high humidity conditions, late afternoon applications should be avoided as overnight dew formation on an uncured surface can cause coating wash-off. On marginal days, multiple applications of thin coats can ensure proper drying before rain or overnight freezes.

PONDED WATER:

- NanoTech Materials 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).

LIMITATIONS:

The 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 NanoTech Materials All Weather Coat requires complete evaporation of water. Cool temperatures and high humidity retard cure. In addition, this product is not recommended for use without a vapor barrier in cryogenic tank or cold storage roofing applications. It is not intended for use as a thermal barrier.

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 the Safety Data Sheet (SDS) and product labels. This product is intended solely for use by trained and approved professional applicators. For additional information, contact NanoTech Materials directly.

EQUIPMENT:

Minimum requirements:

Brush: Synthetic filament

Roller: 1¼" nap roller

Spray

- 30:1 fluid to air ratio capable pump
- 2½ 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" min., 6 ft whip; 3/8" min. I.D. up to 75 ft; 1/2" min. I.D. up to 200 ft; 3/4" min. I.D. over 200 ft
- Spray gun: Graco Hydra Mastic or equivalent
- Spray tip: reversible self-cleaning type; orifice size .027 to .039; fan angle 40° to 50°
- Always use components rated for pump pressures