

TRÜNANO™ METAL ARMOR

Complies with SCAQMD
VOC: Less than 100 g/L
LEED 7 Points CARB

DESCRIPTION

TruNano™ Metal Armor is a coating designed to protect metal surfaces from normal destructive forces, providing a long lasting barrier that provides superior resistance to moisture, corrosion, abrasion, salt spray, acid rain and mold. TruNano™ Metal Armor protects against damage resulting from moisture intrusion and chloride ion penetration. For professional use only.

SURFACE

Iron, steel, stainless steel, aluminum, galvanized steel, copper and bronze including painted and primed surfaces.

SOLUTION

Moisture, Corrosion, Stains and Acid Rain.

MATERIAL RESISTANCE CHART

CHEMICAL	RESULT
Moisture	No Effect
Salt Spray	No Effect
Acid Rain	No Effect
Corrosion	No Effect

CHARACTERISTICS

Color: Translucent red or pink
 Finish: Gloss or Satin
 Vehicle Type: Solvent Base
 Flash Point: (C Penskey-Martens closed Cup)
 16.7C/62.1F
 VOC: less than 100 g/L
 Weight per Gallon: 7.36 lbs.
 Non-breathable
 Not for use as a hydrostatic barrier.

SPREAD RATE

Recommended Spread Rate per coat:
 Wet mils: 1.5-2.0
 Dry mils: 0.9-1.2

COVERAGE

Coverage: 800-1600 Sq. Ft./Gal. (approximate) Coverage will vary depending on the porosity and texture of the substrate.

NOTE: Coverage will vary depending on the porosity and texture of the substrate. Substrates with high porosity will require more product, resulting in a lower coverage rate.

EXPECTED WEAR

TruNano™ Metal Armor will protect the substrate, if properly maintained and provided the surface is not exposed to a highly abrasive atmosphere, for up to 3 to 5 years. It is highly recommended that the substrate be inspected on an annual basis to determine environmental wear on the surface.

SURFACE PREPARATION

Prior to the application of TruNano™ Metal Armor, all surfaces and substrates must be clean, dry, and in sound condition. It is extremely important that all oil, dust, grease, dirt, loose rust, and other foreign material be removed.

New Iron & Steel Without Primer or Paint

Clean the entire surface of any rust by grinding or sand blasting. Remove all oils and grease using a solvent such as acetone. The surface must be free of any oil or grease in order for TruNano™ Metal Armor to form a proper bond. To ensure the surface is free of oil and grease use a white rag with a solvent and wipe the surface. If the rag remains white your surface is clean; if the rag turns dark, continue cleaning until it remains white.

If there are multiple metal component parts to the substrate to be coated, or if the substrate is expected to be exposed to large fluctuations of temperature changes in short periods of time, causing thermal expansion and contraction of the substrate, then it is required that the bare metal be primed with a quality rust and corrosion primer per the manufacturer's instructions. After primer has dried per the manufacturer's instructions, apply Metal Armor per Application Instructions.

Old Iron & Steel with existing primer or paint

Inspect the condition of the primer and paint to ensure it is sound and free of peeling or chips. Repair peeling or chipped areas by sanding the loose paint, cleaning the surface of dirt and then re-priming and painting. Make certain the entire surface is clean using a non-solvent based cleaner, as solvents will remove the existing paint. After the entire surface is clean and dry, apply Metal Armor per Application Instructions.

SURFACE PREPARATION - Continued

Aluminum, Copper, Brass, Bronze, & Stainless Steel

Clean the entire surface of any oil and grease using a solvent such as acetone. The surface must be free of any oil or grease in order to form a good bond. To ensure the surface is free of oil and grease use a white rag with a solvent and wipe the surface. If the rag remains white the surface is clean; if the rag turns dark, continue cleaning until it remains white. Once clean, apply Metal Armor per Application Instructions.

Galvanized Steel

New Galvanized Steel will produce off-gassing for the first several months after plating. Allow 6 months for complete off-gassing before applying Metal Armor. If the age of the galvanized surface is unknown, test a small area, looking for air bubbles or blistering on the surface. If none occur within 24 hours, then the galvanized steel is cured. Once it is determined to be fully cured, clean off all oil, grease, and dirt with a solvent such as acetone. To ensure the surface is free of oil and grease use a white rag with a solvent and wipe the surface. If the rag remains white the surface is clean; if the rag turns dark, continue cleaning until it remains white. Once clean, apply Metal Armor per Application Instructions.

Powder Coated Metals

Inspect the surface to ensure there are no breaches in the powder coating. If any appear, make certain to have them recoated or primed with a matching paint to touch up. Clean the entire surface of any dirt, oil or grease using a non-solvent based cleaner as solvent will damage the powder coating. Once the surface is clean and dry, apply Metal Armor per Application Instructions.

APPLICATION INSTRUCTIONS

Test Area

Due to the wide variety of substrates and the various environments, always test TruNano™ Metal Armor in an inconspicuous location to ensure adhesion and determine that the desired look is achieved. There will be an enhancement or change in appearance from the natural surface.

NOTE: TruNano™ Metal Armor is available in a Gloss or Satin finish.

CAUTION: If applying outdoors, make certain the ambient temperature is between 45° F and 105° F, and that there is no chance of rain for a minimum of 5 hours after the estimated time of completion of the coating process. Also make certain there will be no additional morning dew to make the surface damp again after it has dried.

Applications

Once surface has been properly prepared, mask off any adjacent surfaces to keep them free of drips or accidental coating. Wipe all surfaces with a tack cloth to remove any small pieces of dust or contaminants. The application area must be free of dust and other contaminants that may settle into the finish during application and become part of the surface. Using a tack cloth

just prior to applying the coating will ensure no contamination and a more aesthetically pleasing look to the finish coating.

Open TruNano™ Metal Armor. Manually stir contents thoroughly to suspend the nano particles that have settled to the bottom. Make certain to re-stir every 15-20 minutes to ensure proper performance. Do not use a power mixer when mixing. All mixing should be done by hand.

TruNano™ Metal Armor can be applied in three different methods. Each method should be evaluated for the specific application needed.

Roller Application: Using an ultra smooth high density foam roller, pour the TruNano™ Metal Armor into a roller pan and completely saturate the roller with the mixture. Apply a liberal coat in a cross-pattern; left to right, then up and down as quickly as possible, making sure there is always plenty of material in the roller so no spots are missed. Desired wet film thickness (WFT) is approximately 1.5 - 2.0 mils. Make sure to apply as fast as possible as the coating dries fairly quickly.

Pump Sprayer: Using a good quality acetone/alcohol proof pump sprayer equipped with a grey or red cone tip, hold the tip square to the surface being coated. Hold the tip at a distance of 8" to 10" off the surface and spray the surface in a cross-pattern; left to right, then up and down. Be careful not to apply too thick or allow the product to puddle. Desired wet film thickness (WFT) is approximately 1.5 - 2.0 mils. Make sure to apply as fast as possible as the coating dries fairly quickly.

HVLP Spray Application: Use a high volume low pressure sprayer (HVLP) with a 1.0 spray tip with air pressure set at 25 to 30 psi. On a piece of cardboard first spray a test pattern, working to achieve a 6" to 8" elongated pattern approximately 1 1/2" wide in the middle.

Once you achieve the desired spray pattern on the test cardboard, spray the surface in a cross-pattern; left to right, then up and down. This will provide sufficient coverage and help prevent missed areas. Desired coverage is approximately 1.5 to 2.0 mils wet film thickness (WFT).

CAUTION: If using spray application method in an enclosed space, make certain to tent off the area being sprayed with plastic tarps to avoid spray dust from traveling and contaminating other surfaces with overspray dust. Tented and enclosed areas should always be positively supplied with fresh air and have ventilated exhaust to outside using fans. Never spray near any open source of ignition such as pilot light flames, or anything that may spark, as this may cause ignition and explosion of the fumes and vapors.

When spraying outdoors, make certain there will be no rain for at least 5 hours after anticipated completion time. If there is high wind, this will affect the quality of the finish as blowing wind can disrupt the spray pattern from the HVLP sprayer and can contribute to contamination of the finish. It may be necessary to erect a wind screen to protect the area prior to beginning the coating application.