
Product Data Sheet – Rust Armour

Viscosity: - 42 ± 3 Seconds with Zahn # 2

Weight Solids: 47.61 ± 1% (variable depending on color)

Weight/Gallon: 8.34 ± 0.1 Lb/Gal

Wet Film Thickness: 5.0 - 8.0 Mils

Dry Film Thickness: 4.0 – 5.0 Mils.

Film thickness and coverage may vary due to rust penetration, porosity and surface profile. Thicker films on the order of 4.0 – 5.0 mils are used for many protective finishing applications such as for maintenance, bridges, protection of I-beams and over blasted hot rolled steel, treated or sanded Cold rolled steel, treated aluminum and treated Hot Dip Galvanized steel.

Rust Armour provides optimum performance viz., quick cure; hardness at 4 - 5 mils dry film thickness. If additional coats are required then it is recommended that the time interval between the first and second application of Rust Erase be sufficient to allow dry to finger print free. Rust Armour is very unique as it's patented single component technology provides a high cross-link density with the need for the addition of a second component. Furthermore, it does not rely on moisture for cure and does not contain isocyanate. The high cross-link density provides a highly effective barrier to the migration of moisture and soluble salts to the underlying metal as well as exceptional chemical resistance.

Application and Handling:

Prior to application, please stir the container thoroughly using a paint shaker or some other device to ensure that mixture is uniform. Rust Armour can be applied to lightly rusted surfaces, clean metal, and pretreated metal. For best results on rusty metal or bare metal, scuff sanding is recommended with 200 or similar grit sandpaper followed by a solvent wipe with a clean cloth to remove dirt, dust and light oil deposits. Heavy loose rust scale should be removed with a wire brush or similar method. For best results, metal should be dry and free of oil, dirt and salt deposits. Apply by brush, roll or spray. Avoid inhalation and use in a well-ventilated area. Chemical resistant latex or other suitable chemically resistant gloves should be worn. Avoid contact with eyes, face and skin of the uncured product. Dry to touch times under most conditions are less than or equal to 25 minutes. If Rust Armour is to be topcoated, it should be allowed to cure for a minimum of 24 hours. Once open, the container must be sealed to be air tight or reduced stability will result.

Rust Armour can be applied by Brush; Roller or Spray. If Viscosity adjustment is required for optimum application, VM & P Naptha is recommended. Proper mixing of the paint is recommended before application. When not in use it is highly recommended that Rust Armour be sealed properly to minimize skinning, increased viscosity and loss of solvent.

Table I Typical Cure Times: RustArmour ASTM D1640 (Film Formation of Organic Coatings at Room Temperature).

Sr. No.	Dry Time Variations	Minutes
1	Dry to touch – Surface Dry. Coated panels are lightly touched with either finger-tip or cotton swab and observed till the time paint does not transfer onto the touching object.	≤1 Hour
3	Finger print free time – Tack free Thumb is pressed hard against the coated substrate and rolled for 360 degree angle with consistent weight transferring on to the coated substrate. The time required until no finger print is observed is recorded.	≤ 8 Hours
4	24 hour Ambient Cure Time it takes for coating to exhibit good cure. It can also be determined by ASTM D4572 MEK Double Rub. Optimum long-term properties at ambient conditions (18 – 22° C) are achieved after 7 – 10 days. Shorter cure times are observed with an increase in temperature (e.g. over 27° C)	Overnight. (75+ MEK DR) Did not try 7 days (≥ 300 MEK DR)

RustArmour will continue to cure via polymerization for 7 – 10 days at room temperature. After full cure at ambient cure temperatures, RustArmour will exhibit exceptional hardness and solvent resistance. RustArmour will dry more quickly at temperatures exceeding 27° C. Somewhat longer cure times may be observed at temperatures lower than 16°C.

Re-coat time: To ensure maximum performance, although in most cases RustArmour can be topcoated in 24 hours, it is recommended that RustArmour be allowed to cure for 48-72 hours before top-coating. Full hardness is achieved in 7 days or less. Coating should be cured at least 7 days ambient prior to accelerated testing.

Clean up: Clean with VM&P Naptha as soon as possible after application is completed.

Disposal: Contact your local environmental regulatory agency for guidance on disposal of unused product. Do not pour down a drain or storm sewer.

Typical Properties of fully cured Rust Armour (over sanded steel or rusty CRS, rusty CRS prepared in cyclic corrosion cabinet, wire brushed as necessary to remove heavy scale followed by a sweet water washed to remove salts and dried before application of Rust Armour):

- ASTM D 3363 Pencil Hardness – 2H-3H Scratch Hardness
- ASTM D 3359 Adhesion – 2 coats over light rusty metal 5B
- ASTM D 3359 Adhesion – 1 coat over sanded rusty metal 5B
- ASTM D4572 MEK Double Rub upon full cure – \geq 300 MEK DR
- ASTM B117 – 500 hours exposure scribed

Over properly prepared substrate - No softening, blistering, gloss loss, loss of adhesion, scribe creep < 1 mm over sanded Cold rolled steel, pretreated CRS, pretreated hot dipped galvanized steel and pretreated aluminum

ASTM B117 – 200 hours exposure unscribed competitive controls

- Solvent Born DTM from major US Paint company – severe blistering, softening, loss of adhesion
- Water Born DTM from second major US Paint company – severe blistering, softening, loss of adhesion and flash rusting

ASTM B117 – 500 hours scribed exposure of competitive control

- Face blisters, \geq 1mm scribe creep