AEPCO
Auto Electric Products Co.
Coating Division

PRODUCT DATA SHEET

METSOL

(Anti-corrosive and Anti-oxidation Coating)

Service Temperature: - 40° C to 750° C

Description

METSOL is a solvent based poly-acrylic, anti-corrosion / anti-oxidation coating, which can be applied directly on the clean metallic surface. METSOL is formulated using selected petroleum base solvents/crudes to make a stable and superior quality product, which prolongs life of the coated surface. METSOL is highly effective coating in corrosive atmosphere. On evaporation of the solvent after curing, METSOL forms a poly acrylic film, which acts as barrier to resist the attack of acid/alkalis, acidic fumes, salts, highly corrosive atmosphere of humid SO_2, SO_3, and Cl_2 etc.

Metsol is tested and approved by Siemens to apply on plate-fins, fin-tubes (in heat exchangers / condensers) to protect from highly corrosive atmosphere of humid sulphur-di-oxide ($SO_{2)}$, acidic fumes etc. Metsol is tested for coating behavior (in terms of bonding with principle surface at elevated temperatures) as per ISO-2409 and humid SO_2 exposure test as per ISO-3231.

Metsol is easily applicable by brush or dipping. For proper bonding, principle surface should be properly cleaned. Removal of dust, dirt, rust, moisture, loose flakes, grease etc before applying Metsol is must. Properly coated Metsol coating can protect the principle surface for 8-10 years (10-15 microns thickness).

Salient Features

- Provides protection to the metal surface against highly corrosive atmosphere where frequent maintenance is required.
- Dissolves rust and forms highly non-abrasive surface after curing.
- Requires single coat application.
- Fire proof and long lasting (if not tampered after complete curing).
- Does not peel-off even at high temperatures like 250ºC - 350ºC.
- Acts as an anti-corrosive / rust proof coating with good thermal conductivity at low temperatures.
- Good binding strength with ferrous and non-ferrous metallic surfaces.

Scope of Application

- Aluminum, copper heat exchangers, S.S (on fins, tubes, plates, end walls), gas coolers, condensers
- M.S structures, vessels
- Chemical Plants, petrochemical plants, electro-plating plants
- Distilleries, cement industries
- Ice plants: where ice cans directly come into contact with highly corrosive liquid brine solution. Metsol provides 100% protection to the cans from corrosion.
- Hot Gas pipe lines (inside/outside), impellers of the blowers, cooling towers, satellite tubes of coolers
- Graphite specialty items **(Metsol Black)**
  - Graphite tubes (in heat exchangers)
  - Graphite blocks

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Technical Specification

1	Density	0.46 – 0.56 Kilograms/liter at room temperature (Metsol-Golden) 0.8 – 0.83 Kilograms/liter at room temperature (Metsol-Black)
2	Colour	Black and Golden
3	Coverage factor	10 m^2 per Kilogram (for Metsol - Golden) 12 m^2 per Kilogram (for Metsol - Black)
4	Binding strength	Good after 12-24 hours of air drying Excellent after complete curing at 120^0 C for 24 hours (optional)
5	Absorption	Non-wetting
6	Thermal Conductivity	Excellent
7	Chemical reactivity	Neutral against acidic and alkaline solutions/liquid. Tested for humid SO_2, dilute HCl, H_2SO_4 and HNO_3 at 80^0 C and gases like SO_2, SO_3, Cl_2, and HCl etc
8	Maximum service temperature	-40^0 C to 750^0 C
9	Storage	Container must be stored at room temperature (10^0 C – 49^0 C). Once pack is open, material must be used immediately.
10	Shelf life	6 months from date of manufacturing in an unopened container
11	Thickness	15-25 microns (For increased thickness, only curing time has to be increased)
12	Packaging	10, 15, 20, 40 Kilograms
13	Safety	Metsol should be applied in open or well ventilated space
14	Curing time	Touch dry in 4-5 hours but requires 24 hours to become fully dry. Air setting time depends on atmospheric conditions as well

Designed and developed by:
A.P Patki
Innovator of New Generation High Temperature Coatings

For more information, please contact:
AUTO ELECTRIC PRODUCTS COMPANY - MANUFACTURER OF
NEW GENERATION HIGH TEMPERATURE SPECIALISED COATINGS
Office: LIG-135, Harshawardhan Nagar, Bhopal, Pincode: 462003
Contact: 0091 - 9584872708 / 9893323501 / 8827614411
Landline: 0091-755-2499978
Email: aepcocoatings@gmail.com, ap_patki@rediffmail.com
Web: www.aepco-patki.com