



## METGUARD B101 RAPID CURE AIR DRYING COATING PRODUCT AND APPLICATION DATA SHEET

### PRODUCT DESCRIPTION

Polymeric protective **base coat**, especially formulated for **high surface tolerance**. This product provides excellent corrosion protection on **pre-erected and corroded** as well as new structures of hot rolled steel (HRS), cold rolled steel (CRS), galvanized steel and non-ferrous materials such as aluminum alloys, with minimum surface preparation. Unmatched protection against interfacial corrosion **virtually eliminates metal loss**. Further, protection begins **immediately after application** due to rapid cure mechanism. It is supplied as a two component system, PART A and PART B, and air dries at ambient conditions. **Application of this product completely eliminates sand/shot/grit blasting and primers.**

The product is **totally eco-friendly as it is free of iso-cyanates, halogens, chromates, lead, and any other toxic ingredients**. For complete protection of structures exposed to hostile industrial pollutants and/or coastal salinity a top coat of METGUARD T101/T102 is recommended over the base coat.

### APPLICATION AREAS

- New as well as **existing rusted/corroded** steel structural members, used in bridges, marine superstructures, refineries and petrochemical sectors, power & telecom infrastructure, chemical & pharmaceutical and all other industrial installations **exposed to hostile polluting environments C4, C5 & CX**
- Railway tracks both existing as well as new
- **Duplex coatings** on Metalized Steel structures, both galvanized and aluminized

*Note: NOT recommended for immersion conditions.*

### SURFACE PREPARATION

**Nominal surface preparation conforming to St2 required**, involving wire brush/power tool/chipping tool etc. to remove loose scales and existing paints, followed by water wash and solvent cleaning using cotton cloth. The product is compatible with epoxy and urethane coatings and may be used on portions of such previously applied paints which are impossible to remove during **M&R operations**. New structures will require mere solvent cleaning to remove oily residues completely.

### APPLICATION METHOD

- PART A of METGUARD B101 should be homogenized first and PARTS A and B should be mixed in the prescribed proportion and thinned as per requirement with METGUARD Thinner B101. Mechanical stirrer is recommended for homogenization and mixing.
  - **PART A: PART B – 100:8 (by weight) ; 100:10 (by volume)**
- The mixed paint should be used within 8 hrs
- The product may be brushed/sprayed/ roller coated on the surface. Application of successive coats should be attempted after two hours following the earlier coat by spray, however allow for 2 to 3 hours if brushed or roller coated. Avoid very high humidity conditions (RH>85%) during application.
- No special handling is required as the material is non toxic.
- Use in a well ventilated area as the product contains volatile organic solvents.
- DFT required will vary from 80 to 150 micron depending on severity of environment.

## PROPERTIES

### PHYSICAL

Appearance	Free flowing liquid
Density	1.15 ± 0.05 gm/cc
Volume Solids (% v/v)	46
Theoretical coverage at 50 micron DFT	9.2 square meter / litre
Colour	Grey
Gloss	Matt finish
Drying Time (at 27± 2°C; 50% RH)	Touch dry in 30 minutes; hard dry in 2 hours
Pot Life (at 27± 2°C)	Min. 8 hours

### CHEMICAL

Chemical Resistance (ASTM D1308 – Spot test of 4 hours)

5% H <sub>2</sub> SO <sub>4</sub>	Passes
5% HCl	Passes
5% NaOH	Passes
5% CH <sub>3</sub> COOH	Passes
5% Na <sub>2</sub> CO <sub>3</sub>	Passes
5% NH <sub>4</sub> OH	Passes

### CORROSION

Salt Spray (ASTM B117)	More than 1500 hours ( <b>Creep less than 1 mm from scribe</b> )
Cyclic Humidity : ASTM G60 – 86	Passes 1000 hrs.
Prohesion Test : ASTM G 85–94 A5	Passes 1000 hrs.

### MECHANICAL

Adhesion (ASTM D3359)	Classification 5B
Scratch Hardness (IS : 101 part 5/sec 2)	4 kg load (min.)

### THERMAL

Dry Heat Resistance	Up to 150°C
Flame Retardance	Intumescent

*Note: All chemical, mechanical and thermal tests were done on CRS coated to DFT of 150µ and force dried at 70°C for 60 minutes.*

## STORAGE LIFE

Storage life of METGUARD B101, comprising PARTS A and B, is six months when stored in original sealed containers at or below 40°C.

## PACKAGING

Available in 5 litre and 20 litre containers.

## LEGAL NOTE

The information and recommendations relating to the application and end use of above products, are given in good faith based on our current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with our recommendations.