



The Ultimate Protective Solution

SP SHIELD 501

TECHNICAL DATA

A two pack Epoxy polyamide High-build, High-solid self-priming paint system.

INTEDED USES

For extra ordinary protection against aggressive corrosion, chemicals, solvents, alkalies, industrial oils, water, high humidity etc. this high performance Epoxy Coating is practically recommended in Process Industry, Marine applications, Industrial and chemical plants, oil refineries, fertilizer plants, sugar industries, breweries, heavy fabrications, M. S. tanks, pipe lines, Food processing etc. It functions as highly tough coating for high performance having excellent abrasion resistance, very good adhesion, flexibility, chemical resistance, water resistance, corrosion resistance etc.

PHYSICAL PROPERTIES

Colour	: Selected shades
Finish	: Smooth & Semi Glossy
% Solids by Volume	: 80 ± 2 %
Flash Point	: 35 ⁰ C
Mixing ratio (Base : Hardener)	: as mentioned on containers
Thinner intake	: Not required
Maturation time	: Allow the mixed material for 10-15 minutes before use.
Recommended D.F.T.	: 125 - 150 µm.
Drying time @ 30°C & at recommended D.F.T.	: a) Surface Dry : 3 hr. b) Hard dry : 24 hrs. c) Complete Cure : 7 days (for chemical testing)
Over coating Interval	: 8 to 24 hrs. @ 30°C
Recommended Thinner	: T-1000 for equipment cleaning only
Pot Life	: 2 – 3 hrs. @ 30°C
Shelf life	: 12 months (Individual sealed components under normal storage condition)
Theoretical Coverage	: 6.4 M ² /litre on smooth & non-absorbent surface @ recomd. DFT
Application method	: By Brush / Airless spray only
Compatibility	: Compatible with Epoxy / Polyurethane undercoats or topcoats.

SURFACE PREPARATION :

Remove all loose particles, dust, and mill scales by shot blast cleaning is recommended. Mill scales should be removed for optimum performance. Remove all other contaminants, oil, grease etc. by use of our thinner.

Blast clean to Sa 2 ½ (ISO 8501-1), steel profile recommended 30 – 35 µm. (The DFT of the total system should be thrice to profile of the blasted surface.)

APPLICATION EQUIPMENTS :**AIR SPRAY**

Nozzle Size : 1.8 – 2.2 mm
 Operating Pressure : 4-5 kg/cm² (50- 80 psi)

AIRLESS SPRAY

Nozzle Size : 0.38 – 0.48 mm
 Operating Pressure : 115 kg/cm² (1600 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomization. As conditions will vary from job to job it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results.

APPLICATION CONDITIONS :

This product should preferably be applied at temperatures in excess of 10⁰ C. In conditions of high relative humidity i.e. 80-85% good ventilation conditions are essential. Substrate temperature should be at least 5⁰C & above the dew point. This product can be over coated after 3-4 hrs.

The maximum air and substrate temperature for application is 50⁰C providing conditions allow satisfactory application & film formation. If the air & substrate temperature exceed 50⁰C & this coatings are applied under these conditions, paint film defects such as dry-spray, bubbles & pinholes etc. can occur within the coating.

Application at ambient air temperatures below 5⁰c is not recommended. Do not apply when relative humidity rises above 90%. Do not apply during rain, fog or mist. Such conditions do not permit adhesion of coating with the substrate. **(For details please refer our painting procedure.)**

POT LIFE OF MIXED MATERIAL :

At the time of mixing the material, if the temperature exceed of 35⁰C the pot life will be approximately halved. Use of this product outside of the pot life may result in inferior adhesion properties even if the material appears fit for application. Thinning the mixed product will not alleviate this problem.

Thinner should be added after mixing the Base & Hardner in recommended mixing ratio by volume.

RESISTANCE GUIDE :

EXPOSURES	SPLASH & SPILLAGE	FUMES & OUTDOOR EXPOSURE
Acids	Good	Good
Alkalis	Very Good	Good
Solvents	Very Good	Excellent
Salt	Very Good	Excellent
Water	Excellent	Excellent
Industrial Oils	Excellent	Excellent

Temperature Resistance : Intermittent 150⁰C & Continues 120⁰C

ADDITIONAL NOTES :

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of this product commences immediately the two components are mixed, and since the reaction is dependent on the atmospheric **temperature**.

Numerical values quoted for physical data vary slightly from batch to batch & against the temperature.

SAFETY PRECAUTIONS :

While applying this product in closed structures, arrangements for adequate ventilation must be ensured. Smoking and naked lights should not be permitted. Mask should be worn when spraying. To avoid skin contamination use barrier cream or disposable gloves. Wash hands and face regularly with hot water and soap. Brushes & equipment should be cleaned with recommended thinner immediately after use.

DISCLAIMER : The information in this data sheet is given to the best of our knowledge based on laboratory testing & practical experience. It is the user's responsibility to conduct all necessary trials & tests to confirm the suitability of any product or system to their intended use. Our all recommendations or suggestions whether in technical documentations in writing or verbal are given in good faith but without any type of warranty or liability on us. We have no control over either the quality or condition of the substrate, or the factors affecting the use & applications of the product. Therefore we do not accept any liability arising from loss, injury or damage resulting from such uses.



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