

Anupam Enterprises

Protective Coatings Division

Monocoat Enamel

Aliphatic Polyurethane

Product Description

Monocoat is a two-component, durable, high solid, high build, aliphatic acrylic polyurethane coating that combines superb corrosion and chemical resistance with the attractiveness of high gloss coatings. It can withstand primer application. It is available in both glossy and matt versions. Metallic colours are also available.

Features and Benefits

- Has a very good gloss and colour retention property.
- Has excellent resistance to abrasion and cracking.
- Exhibits superior application properties, environmental durability and chemical resistance.
- Excellent resistance to staining, scratching, impact and abrasion.
- Resistant to dilute acids, alkalis, solvents, lubricating oils, etc.
- Has excellent impermeability to water and chemical vapours.
- Has excellent adhesion property over a variety of substrates when applied without primer.
- Provides long-term protection and is economical.
- Available in special metallic colours too.

Recommended uses

Steel structures	FRP surfaces
Non-ferrous metals	Wooden surfaces
Concrete surfaces	Variety of plastic surfaces
Interior application	Exterior application
Off-shore platforms	Railway wagons and coaches
Petro-chemical Plants	Oil Refineries
Power Plants	Chemical Plants
Bridges	Pulp & Paper Mills

Surface Preparation:

Steel - The surface should be blast cleaned to **SSPC-SP 10-63T** or **NACE No. 2** i.e. loose rust and scales, dirt, grease, oil, paint, wax, weak oxide films and other contaminants should be removed. Blast cleaning to **SSPC-SP 5-63** or **NACE No. 1** is recommended where heavy corrosive conditions exist or coating is required to be immersed. That means a surface with a grey metallic colour, slightly roughened to form a

suitable anchor pattern for coatings. This surface is free of all oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint and other foreign matter. In absence of blast cleaning, prepare the metal surface by wire brushing, sanding, grinding, scrapping or chipping with hand or power tools. Remove all the contaminants. Apply one coat of **Anticora EEP - 500 Epoxy Zinc Phosphate Primer** followed by two to three coats of **Monocoat Enamel**.

Wood: Always select seasoned wood for excellent wood finishing. The wooden surface to be coated must be dry and free from dust, oils, grease and other foreign matter. Sand the surface with dry sandpaper no. 180 or with any other suitable type until the surface is smooth. Remove all dust. Fill the grains with **Anupam Wood Filler** and after drying, sand with sandpaper no. 280 or 320.

Mix base and hardener components of **Monocoat Sealer** in recommended ratio in a clean container. Do not mix more than can be used within 8 hours. Allow the mixture to mature for 30 minutes before application. Apply a coat of **Monocoat Sealer** and after 16 hours of drying, scuff with sandpaper no. 320 or higher. Remove all dust. Further coats are recommended until the surface becomes smooth. If wood stains are required, apply a coat of spirit based or water based stain on the sealer. Apply a coat of **Monocoat Enamel** (clear or pigmented) as suggested above for **Monocoat Sealer**. More coats can be applied for achieving desired finish.

Non-ferrous Metals - Remove dirt, dust, oil, old paint etc. Degrease the surface with degreasing solvents like xylene or tri-chloroethylene. Apply one coat of **Anupam - 291 Wash Primer** for obtaining maximum adhesion. Apply one coat of **Anticora EEP - 500 Epoxy Zinc Phosphate Primer** followed by two to three coats of **Monocoat Enamel**.

FRP Plastics - Fibre Glass Plastic surfaces should be wiped cleaned with degreasing solvents so that traces of mould release agents, dirt, dust and foreign contaminants are removed. Apply one coat of **Anupam FRP Primer**. Immediately, within 30 minutes, apply one coat of **Anticora EEP - 500 Epoxy Zinc Phosphate Primer** and allow it to cure for at least 16 hours. Sand the surface with sandpaper no. 180 or 220. Remove all dust and dirt. Apply two full coats of **Monocoat Enamel**.

Other Plastics - For Polypropylene surfaces, apply one coat of **Anupam PP Primer**. Immediately after 15-30 minutes, apply one coat of **Monocoat Enamel**. If necessary, two coats at an interval of 16-24 hours can be applied. Contact **Anupam Protective Coatings Division** for further details on other plastic surfaces.

Resistance Guide:

(Resistance to spillage and splash - not immersion)

- Alcohols : **Severe**
- Aliphatic solvents, gasoline, kerosene, fuel oil : **Severe**
- Alkalis : **Moderate**
- Aromatic Solvents : **Severe**
- Oxygenated Solvents : **Moderate**
- Weak solutions of mineral & organic acids : **Moderate**
- Fats & oils, lubricating oils, cutting oils : **Moderate**

*** Specific exposure environments may affect some colours. Contact Anupam for details.*

TECHNICAL DATA

Name/Description	Monocoat Enamel
Type	Two pack cold cured
Composition	Aliphatic Acrylic Polyurethane
Colour	Range of colours and clear, Metallic Colours
Finish	Glossy / Matt
Volume Solids (mixed)	44± 3% Clear 42± 3% Pigmented
Mixing Ratio	Base : Hardener 10 : 1 by volume
Pot Life @ 30° C	6 to 8 hours
Dry film thickness per coat	30 to 40 microns
Coverage-(theoretical-no loss)	10.5 to 14 m ² /litre
Serviceability @ 30° C	
Dry to touch	30 minutes
Hard Dry	Overnight
Recoat	16 hours
Full Cure	7 days
Induction (Sweat-in-time) @ 30° C	30 minutes
Dry heat resistance	120° C
Relative Humidity	85%
Application Temperature	
-minimum	10° C
-maximum	35° C
Solvent/Thinner	Monocoat Thinner
Flash Point	25° C
Packing	4 & 20 litres
Shelf Life	6 months
Precaution	Flammable. Keep away from heat and open flame. Maintain good ventilation and avoid breathing vapours.

Notes

- Brushes and spray equipments should be cleaned with **Monocoat Thinner**.
- The contents should be stirred thoroughly prior to use.
- After mixing Base and Hardener in recommended proportions, allow for 30 minutes induction period or *sweat-in-time (maturing)* before application.
- Precaution should be taken to close immediately the Hardener component since the Hardener is very susceptible to atmospheric moisture.
- Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible. Best results in terms of gloss and appearance will always be obtained with conventional air spray application.
- When overcoating the weathered or aged **Monocoat Enamel**, ensure that the coating is fully free from all contamination such as oil, dust, grease, stains etc.
- This coating should always be thinned with **Monocoat Thinner**. The use of alternative thinners can severely inhibit the curing mechanism of the coating.

Disclaimer:

Information provided herein is based upon tests believed to be reliable. It does not guarantee the results to be obtained. Nor does it make any express and implied warranty or merchantability, or fitness for a particular purpose concerning the effects or results of such case. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended uses. The application, surface preparation and use of the products are beyond our control and, therefore, entirely your own responsibility.

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