



# AdvanceCoat PU Finish

## High Performance High Solid Non Yellowing Polyurethane Finish

### Generic Type :

Two pack non-yellowing finish base on acrylic polyol and aliphatic polyisocyanate resin.

### Description :

AC PU Finish is a high solid non-yellowing polyurethane system use as finish coat for steel structure. It have excellent weathering, gloss and color retention properties, chemical, water and salt water and oil resistance .

### Typical Uses :

Can be used as heavy duty finish coat for steel structure where long term protection against corrosion and weathering are require.

- Chemical Plant and factories
- Bridges
- Vessel
- Off shore structures

### Physical Data :

Color : White, as specified  
 Flash Points : Base -  $^{\circ}\text{C}$  ; Hardener -  $^{\circ}\text{C}$   
 Volume solid : 52 +/- 2%  
 Shelf Life @ 20 $^{\circ}\text{C}$ /indoor : 24 months

### Application Details

Mixing Ratio: Base:Hardener =5:1 (by wt)  
 Base:Hardener=4:1 (by Vol)

Drying Time(at Dry Film Thickness 50 $\mu$ )	Temperature	10 $^{\circ}\text{C}$	20 $^{\circ}\text{C}$	30 $^{\circ}\text{C}$
	Surface Dry		2.5hr	1.0hr
Hard Dry		13 hrs	8 hrs	7 hrs
Painting interval:	Minimum	24 hrs	10 hrs	8 hrs
	Maximum	30days	30days	30days
Pot life / working life		6 hrs	4 hrs	2 hrs
Theoretical coverage (at DFT 50 $\mu$ )		0.096 L/m $^2$ ; 125 g/m $^2$		
Service temperature		-60 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ (dry)		

### Application Data :

Application Method : airless spray, roller, brush

Mixing Procedure : Power mix separately and then combine and power mix for at least two minutes or until homogeneous. When mixing partially, it is critical to follow to the mixing ratio as stated to ensure proper cure and film properties.

Curing schedule : Complete curing – 7 days. Higher film thickness, insufficient ventilation, or lower temperature will require longer

cure time. Excessive humidity or condensation on the surface can interfere with the cure cause discoloration and may result in a surface haze. Any haze must be removed by water washing before recoating. If the maximum recoat time have been exceeded, the surface need to sand or sweep blast prior to the application of additional coat.

This product requires the substrate temperature to be above the dew point ( + 3~5  $^{\circ}\text{C}$ ). Condensation due to substrate temperatures below dew point can cause flash rust on metal and adhesion will be affected.

### Application procedure :

Mix properly the two component before use.

- a) Flush equipment with thinner or AC Thinner B before use.
- b) Mix the base and hardener according to the stated ratio until homogeneous. Observe the pot life, at higher temperature, the pot life will be shorten.
- c) Thin only if necessary for workability.
- d) When applying by conventional spray, use adequate air pressure and volume for proper atomisation.
- e) Apply a wet coat in even parallel passes, overlap 50% to avoid holidays and pin hole.
- f) Clean up all equipment with thinner or AC thinner A immediately after use.
- g) Keep containers tightly close and store in proper storage area.

### Condition of Application :

Use brush or roller with 1/8" nap . Apply at sufficient thickness and avoid repeating rolling to have good levelling.

Temperature : Minimum 5  $^{\circ}\text{C}$   
 Humidity : Maximum 85 % R.H.  
 For Airless spray :-  
 Tip Size : Graco 615 or equivalent  
 Paint Output pressure : 150 – 240 kgf / cm $^2$   
 Viscosity : 30 – 40 second ( Ford cup no 4)  
 Thinning : 0 – 10 % by volume

### Surface Preparation

General : Surfaces must be clean and dry, all contaminants like dirt, dust , oil must be remove by appropriate method to ensure good adhesion



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### Performance Data :

Properties	Test Method	Evaluation
Adhesion	ASTM D4541	25 kgf / cm <sup>2</sup>
Salt Spray	ASTM B117	1000hrs No blistering, rusting and rust creep from scribe
Accelerated Exposure test ( QUV )	ASTM D4587	1000 hrs gloss retention >80% Color diff. <2.0
Cyclic Salt Fog/ UV exposure	ASTM D5894:05	1000hrs No blistering, rusting and rust creep from scribe
Outdoor Exposure	JIS5400-1990	1 year gloss retention >80% Color diff. <2.0

### Safety Precaution and Clean-up

**Safety :** Read and follow the material safety data sheet (MSDS) before use. Employ normal safety precaution. Put on necessary personal protection equipment when handle and use this product.

**Ventilation :** when working in a confine workplace, thorough air ventilation must be used during and after application until the coating is cured. The ventilation system should be effective to prevent solvent vapour concentration from reaching lower explosion limit for the product and to ensure exposure limit to the personnel to be below permissible exposure limit.

**Caution :** All electrical equipment and installations should be made and properly grounded. In area where explosion hazard exist, workmen should be used non-ferrous tools, conductive and non-sparkling shoes.

**Clean-up :** Use butyl acetate for cleaning. Observe safety precaution when use the solvents. In case of spillage, absorb and dispose the material and used container according to local required regulation or through licence waste collector.

### Disclaimer

Data, specifications, directions and recommendations given in this data sheet represent test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by user. The products are delivered and any technical assistance is given subject to our GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE and ,unless otherwise expressly agreed in writing ,manufacturer and seller assume no liability in excess of that stated therein for results obtained, injury, direct or consequential damage incurred from the use as recommended above or otherwise. Product data are subject to change without notice and automatically void two years from issue.

### Limited Warranty

Whilst we endeavour to ensure that all advice we give about this product is correct and manufacture according to standard quality control system, however we have no control over either the quality or condition of the substrate or many other factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of this product.