

IPAS 433-F

IP3 Range: 2 Component Low VOC Epoxy Finishes:

1. Scope

- 1.1. This document covers the application and curing of the IP3 Range of 2 component low VOC epoxy finishes. These materials are primarily designed for use over IP3 2 component low VOC epoxy chromated or chrome free anti-corrosive primers in an aerospace coating system, although other applications may be applicable subject to end user approval
- 1.2. This procedure covers all versions
- 1.3. Please read this document in conjunction with any specifier drawing or application information sheets.

2. Substrate Preparation

- 2.1. All substrates must be clean, grease and dust free prior to painting
- 2.2. IP3 finishes are normally applied as the finish coat over IP3 2 component low VOC epoxy primers, both chromated and chrome free.
- 2.3. In certain cases IP3 finishes can be applied to correctly pre-treated metal substrates. The minimum requirement would be degrease and grit blast using 120 / 220 aluminium oxide grit, or chromated or chrome free conversion coatings.
- 2.4. For certain applications, on small parts, a mechanical abrasive clean with abrasive paper can be used, subject to end user evaluation / approval

3. Coating Preparation

- 3.1. Ensure that the material is thoroughly mixed prior to use. The coating could settle on standing due to the technical composition of the material. Thorough mixing that is designed to lift any settled material from the base of the container is essential prior to coating application
- 3.2. **Mixing:** The IP3 Range is a two component product, and requires mixing with IP3-CAT before use. Please refer to the base component can label for the correct volumetric mixing ratio (NOTE: the mixing ratio can vary from colour to colour)
 - 3.2.1. An induction time of 15 minutes is required following addition of the catalyst. Re-stir the mix before use.
 - 3.2.2. Mixed Pot Life: 4 hours
- 3.3. The mixed material will require thinning for spray application. Typically 10% thinner IP-MEG-Reducer is required to give best atomisation

Viscosity measurement prior to application may be performed at the discretion of the end user.

4. Application and Curing / Baking

4.1. The coating is designed for spray application using conventional or HVLP air atomising spray guns. It is recommended that latest generation 'compliant' spray guns are used to provide the best finish with minimal orange peel. Other methods may be employed subject to end user evaluation and approval for specific components.

4.2. Parts shall be sprayed with wet on wet coats allowing a 2-5 minute dwell between each coat. This process will give a typical wet film thickness of 50 microns, nominal 30 micron dry film.

4.3. The range can be allowed to cold cure (air dry) or can be force cured

4.3.1. **Air Dry:** Minimum room temperature: 12°C (55°F)
Surface dry / handleable: 4 hours
Hard Dry to Overcoat: minimum 16 hours
Full chemical hardness: 7 days

4.3.2. **Force Curing:** Air dry / flash off: 45 minutes at room temperature
Cure: Typically 60-90 minutes @ 70-90°C (160-195°F)

5. Coating Thickness

5.1. The recommended dry coating thickness is 25-35 microns

6. Touch Up

6.1. Damaged areas may be spot repaired in accordance with end user specifications

6.2. The coating immediately adjacent to the damaged area should be feather using 240-320 grade abrasive paper or equivalent. The damaged area must be thoroughly cleaned and degreased. The touch in coating may be spray or brush applied. Air dry or force cure as per clauses 4.3.1 or 4.3.2

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