

IPAS 433-S

2 Component Low VOC Sealers for Magnesium and Composites:

1. Scope

1.1. This document covers the application and curing of the IP Range of 2 component low VOC sealers, to include IP2307; IP2439 and IP2539. These materials are primarily designed for use as sealants for magnesium; aluminium and composites (either as a full coating or a touch up) 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 an specifier drawings or application information sheets.

2. Substrate Preparation

2.1. All substrates must be clean, grease and dust free prior to painting

2.2. **Magnesium and Aluminium:** The normal minimum surface preparation should be abrasive blast with 120 / 220 aluminium oxide grit. It is more normal to utilise either a chromated or chrome free immersion conversion treatment or a chrome free or chromated anodic pre-treatment

2.3. Composites. The surface should be free from grease and dirt. Clean the surface of the composite with a degreasing cleaner, typically IPA, using lint free cloths and allow to dry fully.

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. 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:** These materials are two component product and requires mixing with the correct catalyst 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 a full wet coat. This will give a typical wet film thickness of 30 microns, nominal 20 micron dry film.

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

4.3.1. Air Drying / Cold Curing: 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 18-25 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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