

# POWDER COATINGS - RESEARCH & DEVELOPMENT

## **AASS Testing of the Supplied Powder Coated Component**

**TSR** 131169

Account Manager Frank Mula

**Date** 6<sup>th</sup> January 2014

Customer Gershwin P/L trading as Prowler Proof

Aim To determine the corrosion resistance performance of the supplied part in Acetic Acid Salt Spray for

approximately 1000 hours. Determine also other coating properties including film build, solvent resistance/cure and initial adhesion. Provide an interim report at approximately 500 hours.

Method Refer to AS3715: 2002

AS 2331.3.2 – 2001 Method 3.2: Corrosion and related property tests – Acetic Acid Salt Spray test (AASS)

AS 1580: 2004 Method 408.4: Adhesion (cross-cut)

**Component/s** 1 x **ForceField** window assembly

**Pre-treatment** Chrome-free

**Powder Duralloy Pearl White Gloss 272-81880** 

#### Part 131169/1

Test	Description	Specification	Result	Pass/Fail
Initial Film Properties	Film Build	Range: 50 – 100 μm Recommended : 80 μm	50 – 82 microns	Pass
	Initial Adhesion	Classification 1 max.	0	Pass
	Solvent Resistance/Cure	Slight softening &/or marking	Slight marking only	Pass

**Results** At hours listed

#### Part 131169/1

Test	Description	Specification	Result	Pass/Fail
Corrosion Resistance 1071 hrs Acetic Acid Salt Spray	Adhesion	Classification 1 max.	0	Pass
	Blistering – general area	Size (S) 2, Density (D) 2 max.	0	Pass
	Blistering – scribed area	Size (S) 2, Density (D) 2 max.	0	Pass
	Corrosion – general area	No visible corrosion	No visible corrosion	Pass
	Corrosion - filiform Mean Creep from scribe	Note severity & distance from scribe &/or panel edge Mean Creep - 2 mm max.	5 spots of filiform corrosion – average <1mm	Pass

### **Conclusion:**

Initial film properties tested indicate that the pieces passed for adhesion, solvent resistance/cure and film

After approximately 1000 hours exposure the sample has passed to the Standard for Acetic Acid Salt Spray exposure with only minor filiform developing on one of the scribes.

**Brigid Fahey** 

Technical Officer - Powder Coatings R&D

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