



Corrosion Resistance Performance of Supplied Parts Exposed To Neutral Salt Spray Conditions

TSR 140363

Account Manager Frank Mula

Date 28th October 2014

Customer GERSHWIN P/L

Aim To determine the corrosion resistance performance of the supplied parts in Neutral Salt Spray for 1000 hours or until failure.

Method AS 2331.3.1 – 2001 Method 3.1: Corrosion and related property tests - Neutral Salt Spray test (NSS).

Component/s 2 x Extrusion pieces

Pre-treatment Chrome-free

Powder Duralloy Pearl White Gloss 272-81880

Part 140363/3

Test	Description	Specification	Result	Pass/Fail
Initial Film Properties	Film Build	Range per 272 TDS: 50 – 100 µm Recommended : 80 µm	62 – 120 microns	Pass
	Initial Adhesion	Classification 1 max.	0	Pass
	Solvent Resistance/Cure	Slight softening &/or marking	Slight marking only	Pass

Part 140363/4

Test	Description	Specification	Result	Pass/Fail
Initial Film Properties	Film Build	Range per 272 TDS: 50 – 100 µm Recommended : 80 µm	56 – 100 microns	Pass
	Initial Adhesion	Classification 1 max.	0	Pass
	Solvent Resistance/Cure	Slight softening &/or marking	Slight marking only	Pass

Results**At hours listed****140363/3**

Test	Description	Specification	Result	Pass/Fail
Corrosion Resistance 1069 hrs	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
Neutral Salt Spray	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.	No filiform corrosion 0	Pass

140363/4

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Corrosion Resistance 1069 hrs	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
Neutral Salt Spray	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.	No filiform corrosion 0	Pass

Conclusion:

Initial film properties tested indicate that all pieces passed for adhesion, solvent resistance and film builds, except that there were a few regions on the frames that had areas of low film build. All parts have passed 1000 hours Neutral Salt Spray exposure with no surface defects in the scribed or general areas.

Brigid Fahey

Technical Officer – Powder Coatings R&D

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Appendix:

Photographs – NSS Extrusion pieces

