



Product Finishes Division
Columbus Regional Lab

April 13, 2016

To: Tim Jones
From: Frank Price
Subject: Prj #15713P0372
Customer: Alkote

Summary: The panels have completed 4000 hours of salt spray exposure the panels have no area rust. Panel #6 has a few#6 blisters. Creep rating not done until final when panel will be scraped.

Purpose: Panels coated with PWS6-C0018 were submitted for salt spray exposure. The panels are all to be X scribed with 1 of the panels being removed after 1000 hours, two panels to be removed after 2000 hours and two for 5000 or failure.

Procedure: The panels were labeled and their dry film thickness was measured (ASTM D7091). The panels were given an X scribe down to the substrate before being placed into a salt spray cabinet. The testing and evaluations were conducted per ASTM B117 (operation of salt fog apparatus), ASTM D1654 (corrosion resistance), ASTM D714 (Degree of blistering), and ASTM D610 (Degree of rusting). Two of the panels in salt spray are to be removed after 1000 hours of salt spray and given their final grade. Two panels in salt spray are to be removed after 2000 hours and given their final grade and two for 5000 or failure.

Results: The panels have completed 3000 hours of salt spray exposure the panels have no area rust. Panel #6 has a few#6 blisters.

The following tables are included:

Table 1: Part Identification

Table 2: (ASTM B117) Salt Spray Exposure – 1000 Hours (scribed)

Table 3: (ASTM B117) Salt Spray Exposure – 2000 Hours (scribed)

Table 4: (ASTM B117) Salt Spray Exposure – 3000 Hours (scribed)

Table 5: (ASTM B117) Salt Spray Exposure – 4000 Hours (scribed)

Sincerely,

Frank Price
Chemist
Columbus Service Request Lab

Table 1: Part Identification

Panel Identification	Primer	Topcoat	Substrate	Pretreatment
#1-6	N/A	PWS6-C0018	Q panel	Iron Phosphate

Table 2: (ASTM B117) Salt Spray Exposure – 1000 Hours (scribed)

Panel Identification	ASTM D 7091 Dft (Mils)	ASTM D 610 Degree of Rusting	ASTM D 714 Degree of Blistering	ASTM D 1654 Corrosion Resistance (Procedure A)
#1 1000 hours	Dft=3.06-3.77 Avg=3.38	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#2 1000 hours	Dft=3.39-4.23 Avg=3.85	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#3 2000 hours	Dft=3.41-3.99 Avg=3.79	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#4 2000 hours	Dft=3.65-4.54 Avg=4.08	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#5 5000 hours	Dft=3.96-4.86 Avg=4.38	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#6 5000 hours	Dft=2.95-3.93 Avg=3.47	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep

Table 3: (ASTM B117) Salt Spray Exposure – 2000 Hours (scribed)

Panel Identification	ASTM D 7091 Dft (Mils)	ASTM D 610 Degree of Rusting	ASTM D 714 Degree of Blistering	ASTM D 1654 Corrosion Resistance (Procedure A)
#3 2000 hours	Dft=3.41-3.99 Avg=3.79	Grade #10 <0.01% Rust	No Blisters	Rating 10 0 mm Creep
#4 2000 hours	Dft=3.65-4.54 Avg=4.08	Grade #10 <0.01% Rust	No Blisters	Rating 0 16+ mm Creep
#5 5000 hours	Dft=3.96-4.86 Avg=4.38	Grade #10 <0.01% Rust	No Blisters	Rating N/A
#6 5000 hours	Dft=2.95-3.93 Avg=3.47	Grade #10 <0.01% Rust	No Blisters	Rating N/A

Table 4: (ASTM B117) Salt Spray Exposure – 3000 Hours (scribed)

Panel Identification	ASTM D 7091 Dft (Mils)	ASTM D 610 Degree of Rusting	ASTM D 714 Degree of Blistering	ASTM D 1654 Corrosion Resistance (Procedure A)
#5 5000 hours	Dft=3.96-4.86 Avg=4.38	Grade #10 <0.01% Rust	No Blisters	Rating N/A
#6 5000 hours	Dft=2.95-3.93 Avg=3.47	Grade #10 <0.01% Rust	Few #6 blisters	Rating N/A

Table 5: (ASTM B117) Salt Spray Exposure – 4000 Hours (scribed)

Panel Identification	ASTM D 7091 Dft (Mils)	ASTM D 610 Degree of Rusting	ASTM D 714 Degree of Blistering	ASTM D 1654 Corrosion Resistance (Procedure A)
#5 5000 hours	Dft =3.96-4.86 Avg =4.38	Grade #10 <0.01% Rust	No Blisters	Rating N/A
#6 5000 hours	Dft =2.95-3.93 Avg =3.47	Grade #10 <0.01% Rust	Few #6 blisters	Rating N/A