

P-1051

Erosion Resistant Polyurethane Coating



Product P-1051 Erosion Resistant Polyurethane Coating

Item Class Specialty Coating

P-1051 is an anti-static polyurethane-based rain erosion coating formulated for use on exterior aircraft and missile plastic parts. P-1051 has an electrical resistivity of 5-100 megohms per square.

Specifications Product is manufactured to meet the performance requirements of the following specifications:

32005 - 7/66 - AIMS 04.04.005 - AMS-C-83231 Type II Class A - DHMS C4.13 - GMPS 4202A - HMS 20-1642 - HS7136, Type 1, Class B - PS 632 - PWA36013 - TN 10.106
*Anti-static and conductivity independent laboratory tests available upon request.

Catalyst & Additives	Catalyst/Activator	Additive
	639	PS40 Accelerator
		CRL25 (Rolling/Brushing)

Use of Primers Please contact your local 3Chem representative for a complete list of epoxy primers which may be utilized with this system.

Surface Preparation Prepare substrate per OEM requirements. Refer to product application guide for detailed instructions or contact your local 3Chem representative for assistance.

Mixing Instructions	Base	Catalyst/Activator	Mix Ratio
	P-1051	639	1:1

Shake (Base) for 15 minutes to assure no solid settlement remains in can. Add component B catalyst to component A paint first. Mix ratio for material is 1 part component A paint, 1-part component B catalyst. No thinner should be added to semi-gloss or flat colors. (Kit yield either 2 gallons or 2 quarts). Must ensure mix ratio is exact to obtain desired semi-gloss or flat finish.

Induction Time Although no induction time is needed. Once mixed, ensure that admixed material is continuously stirred for at least 5 minutes before proceeding.

Spraying Viscosity 19-22 Seconds with #2 Zahn cup

Pot Life 7 Hours @ 21° Celsius, 70° Fahrenheit

Film Thickness 2-3 MILS DFT (2 Coats @ 1-1.5 DFT) Wet film thickness should be 4-6 MILS total between 2 coats

Application Instructions

Temperature and Humidity	Minimum	Maximum
Temperature Celsius	11°	35°
Temperature Fahrenheit	52°	95°
Humidity	33%	74%

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Application Instructions

Spray Equipment

Spray Gun Type	Tip/Nozzle Size	Cap Pressure	Pot Pressure
Conventional Air	1.3 - 1.6 mm	40 to 60 psi	10 to 20 psi
HVLP	1.4 - 1.6mm	10 psi Maximum	10 to 20 psi
Electrostatic	1.2 - 1.5mm	45 to 60 psi	10 to 40 psi

Temperature	Wet-Edge	Time Between Coats	Dry to Tape	Dry to Handle	Full Cure
52-65°F (11-18°C)	40 Min	30-50 Min	5-6 Hours	7-8 Hours	6 Days
66-85°F (19-29°C)	35 Min	30-45 Min	5-6 Hours	7-8 Hours	6 Days
86-95°F (30-35°C)	30 Min	30-40 Min	6-7 Hours	7-8 Hours	6 Days

Only mix enough material to be applied on initial coat. Always add component B activator to component A paint. Complete kit of material will yield 2 US Gallons (7.5 liters). 1-gallon component A paint, 1-gallon component B activator.

Apply one even wet coat of material using a uniform spray pattern. Cross coat may be used to achieve 100% coverage in one single coat depending on color. Note: Apply only one coat of material to achieve proper gloss requirement of product.

Application Instructions PS40 Accelerator (Fast dry additive mix options)

PS40 Accelerator	Dry Between Coats	Dry to Handle	Dry Hard	Pot Life	Full Cure
2% By Volume	12 Minutes	2 Hours	4 Hours	4 Hours	6 Days
3% By Volume	10 Minutes	1.5 Hours	3 Hours	3 Hours	6 Days
5% By Volume	5 Minutes	45 Minutes	1 Hour	45 Minutes	6 Days

*Note: Overuse of PS40 additive may affect product gloss and finish

Theoretical Coverage 800-900 sq. ft / gallon @ 1 mil 20-22m² / liter @1 mil
*Coverage based on 100% transfer efficiency rate

Color Flat Black

Gloss Less than 5 @ 60 degrees

Volatile Organic Compound 300 – 390 g/l

Shelf Life 24 Months (When stored in climate-controlled environment between 60-80° F)
*Product may be re-certified upon inspection by 3Chem.

Safety Instructions Always read material safety data sheet (SDS) and product label before utilizing this product. Product SDS is available upon request.

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