

P-2023

Erosion Resistant Polyurethane Coating



Product P-2023 Erosion Resistant Polyurethane Coating

Item Class Specialty Coating

P-2023 is a polyurethane-based rain erosion coating formulated for use on exterior aircraft and missile plastic parts.

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

32005 - AMS-C-83231

Catalyst & Additives

| Catalyst/Activator | Additive |
|--------------------|--------------------------|
| 774 | PS40 Accelerator |
| | CRL25 (Rolling/Brushing) |

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|--------------------|--------------------------|
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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-2023 | 774 | 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 together, 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 Mills DFT (2 Coats @ 1-1.5 DFT) Wet film thickness should be 4-6 Mills total between 2 coats

Application Instructions

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

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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