Corashield®

WATERBORNE ANTI-CHIP COATING

P8071-RF

CSPB-003

Product Description

CORASHIELD® P8071-RF is a one-component, waterborne, sprayable coating which is black in color. It is designed to prevent chipping, cracking or marring of painted or unpainted surfaces after exposure to high impact sand, gravel and other abrasive materials.

Advantages

- High thin film performance (10 mils dry)
- One component
- Air dry
- High performance-to-price ratio
- Waterborne
- Light weight

Applications

Typical Substrates:
Corashield can be applied direct to metal (DTM) on properly prepared (clean, free of dirt and oils, sanded or unsanded) aluminum, steel, stainless steel, galvanized, and galvaneal metals.

Typical Applications:
To protect painted or unpainted surfaces from environmental damage caused by sand, gravel and other abrasive material exposure. Application in automotive, aircraft, commercial building & general industrial.

Compatible Surfaces: *Corashield may be applied over:*

DELFLEET® Evolution

- F3950 High Solids Epoxy Primer
- F3993/95/97 Conventional Epoxy Primer-Gray/Buff/Black

DELFLEET ESSENTIAL®

- ESU420/ESU421 3.5 VOC Epoxy Primer-White/Gray

Technical Properties

Resin Chemistry:	Acrylic	**RTS Blend Ratio:**	One Component
Physical State:	Liquid - Viscous	**Applicable Use Category:**	Other Coating
Color:	Black	**VOC Actual (g/L)**	4.79 g/L
Odor:	Mild	**VOC Actual (lbs/gal)**	0.04 lbs./gal
Flash Point:	406°F (208°C)	**VOC Regulatory (g/L) (less water less exempt)**	81.35 g/L
Viscosity:	35,000 cps	**VOC Regulatory (lbs/gal) (less water less exempt)**	.68 lbs/gal
pH:	9.4	**Density (g/L)**	995 g/L
HAPs (lbs/gal)	0	**Density (lbs/gal)**	8.3 lbs./gal.
Storage Temperature:	50°F-90°F (10°C-32°C)	**Volatiles weight %**	50.63%
Shelf Life:	90 days	**Water weight %**	46.31%
Specific Gravity:	1.0	**Exempt weight %**	0%
Solids by Weight %	50.0%	**Water volume %**	46.65%
Sq. Ft. Coverage / US gal. 1 mil@100% T.E.	769	**Exempt volume %**	0%
		Solids volume %	47.95%

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Corashield Products tested to NES M5062

Specification Testing

Products tested on ELECTROCOAT ED6060 @ 10 mils dry

Test Item	Result
10 Environmental Cycles:	One cycle = 4 hrs. @ 194°F (90°C), 0.5 hrs. @ RT, 1.5 hrs. @ -40°F (-40°C), 0.5 hrs. @ RT, 3 hrs. @ 95% RH & 158°F (70°C), 0.5 hrs. @ RT, 0.5 hrs. @ -40°F (-40°C), 0.5 hrs. @ RT
Humidity Resistance:	120 hrs. @ 95% RH & 122°F (50°C)
100 Corrosion Cycles:	One cycle = 2 hrs. @ 95°F (35°C) salt spray, 2 hrs. @ 140°F (60°C) 2 hrs. @ 95% RH & 122 °F (50°C)
Salt Spray:	1,000 hrs.
After each of the above environmental conditions, the Corashield panels were evaluated against the following tests:	
Flexibility:	Panels were bent 180° around a 20mm mandrel @ -20°F (-4°C) without cracking
Shock Resistance:	500 gram conical weights were dropped from 50 cm onto -40°F (-40°C) conditioned panels without cracking
Chip Resistance:	5 pints of #6 Japanese garden stones were propelled using 5Kg/cm2 (80 psi) air

Customer must verify performance for their particular substrates and process. An experimental design is recommended to be performed by the customer to evaluate all variables in the manufacturing of their part.

Use And Control Instructions

Apply coating onto substrate and air dry at room temperature. Substrate surface must be clean and dry before applying CORASHIELD® P8071-RF.

- Coating should be applied at 18-22 mils wet to achieve 10-13 mils dry
- Coating must be applied at ambient temperatures of 50°F – 90°F (10°C-32°C)
- Material will be dry to touch within 30 minutes, dry hard within 24 hours and be fully cured within 72 hours
- Humidity must be 0% to 80% to dry within 30 minutes
- Substrate cannot exceed 212°F (100ºC) when coating is being applied
- Do not expose coating to freezing temperatures
- Heat of 180°F(82ºC) or less can be used to force dry the coated parts
- Excessive temperatures can cause product blistering
- Air drying is the recommended process

Remove excess dust, dirt and debris from the substrates to be bonded with a clean, dry lint-free cloth. Wiping the substrate with a solvent or degreaser may be necessary to remove any oils, grease or tar from the surface. Power washing may also be used to remove any dirt and loose material from the substrate surface.
This is a water-based coating and cannot be exposed to freezing temperatures. *Corashield* P8071-RF will skin over once opened so reseal container tightly.

Clean Up

Wet Coatings: Use water for clean-up
Semi-Dried Coatings: Mixture of isopropyl alcohol and water should be used
Dried Coatings: Aromatic solvents such as mineral spirits or toluene

Precautions

Consult the most recent Material Safety Data Sheets for health and safety information relative to the safe handling and storage of this material, and all reagents and indicators used to control this material. Emergency 24 hour CHEMTREC number: 800.424.9300

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