



HP | HIGH PERFORMANCE

HP4100

Fast-Cure Polyamide Epoxy Satin

General Description

HP4100 Fast-Cure Polyamide Epoxy is a unique satin sheen epoxy coating that can be put into service as soon as 24 hours after application and can be applied in temperatures as low as 1.7 °C (35 °F). This high-solids coating exhibits excellent chemical and abrasion resistance and may be used directly on most substrates and as a high durability floor coating. **This is a two-component product that requires 1 part of the proper "A" component mixed with 1 part of part "B" catalyst. The components are already premeasured to the proper mix ratio. No measuring required. Do not mix partial kits.**

- Low temperature applications
- Multi-surface, impact- Resistant
- Excellent acid and chemical resistance
- High-solids, low-sheen finish

Usage

Designed for coating properly prepared and/or primed steel, iron, concrete, and non-ferrous metals. For use in standard and low temperature applications in the food and beverage processing industry, industrial maintenance market, industrial flooring, fabrication market, chemical processing market, and transportation market. This product may be used interior or exterior, however if left without top-coating in exterior applications, the coating may prematurely chalk from UV exposure.

Colours	Clear (00), Silver Gray (70), Battleship Gray (75), Black (80)
Bases	7B, 8B, 9B
Colorant System	Industrial

Technical Data (Gloss)

Vehicle	Polyamide epoxy	
Volume Solids (mixed)	76 ± 2%	
Spread Rate	32.5 – 46.5 sq. m.	
Per 3.79 L	(350 – 500 Sq. Ft.)	
Recommended	Wet:	3.2 – 4.6 mils
Film Thickness	Dry:	2.3 – 3.3 mils
Depending on surface texture and porosity.		
Dry Time @ 25 °C (77 °F) @ 50% RH	To Touch:	3 – 4 hours
	To Recoat:	8 hours
	Return to Service:	24 hours
Maximum abrasion and chemical resistance is achieved at full cure, which is generally within 3 – 5 days. Care should be taken to prevent damage to the coating during the curing process. High humidity and cool temperatures will result in longer dry, recoat and cure times.		
Recoat after 72 hours: Abrade the surface to ensure proper inter-coat adhesion.		
Surface Temperature	Min:	1.7 °C (35 °F)
During Application	Max:	37.8 °C (100 °F)
Viscosity	103 ± 4 KU	
Flash Point	27 °C (80 °F) or greater (TT-P-141, Method 4293)	
Sheen / Gloss	35 – 40 @ 60°	
Clean Up	HP7040	
Thinner	Do not thin	
Mixed Ratio (by volume)	1 : 1	
Induction time @ 25 °C (77 °F)	30 minutes	
Pot Life @ 25 °C (77 °F)	3 hours	
Weight Per Gallon (mixed)	5.8 kg (12.8 lbs.)	
Storage Temperature	Min:	7.2 °C (45 °F)
	Max:	35 °C (95 °F)
VOC (Catalyzed)	< 250 g/L	

Surface Preparation

Surfaces must be clean, dry and free of all grease, dirt, dust, oil and wax. Clean all surfaces using HP6000 Oil & Grease Emulsifier. Remove all remaining loose paint, rust and mill scale via Hand Tool Cleaning (SSPC-SP 2) or Power Tool cleaning (SSPC-SP 3). Fill holes and cracks and sand smooth. Glossy surfaces must be fully deglossed. Moderate to heavily rusted areas must be thoroughly prepared and active rust should be properly removed.

All masonry surfaces must be allowed to cure a minimum of 30 days before painting. Acid etch or abrasive blast all slick, glazed concrete or concrete with laitance. For acid etching, follow all manufacturer's directions and safety instructions. Rinse thoroughly and allow to dry.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by logging onto Health Canada @ <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/environmental-contaminants/lead/lead-information-package-some-commonly-asked-questions-about-lead-human-health.html>

Primer Systems

Ferrous Metal: Prime with HP1550 Concrete and Metal Epoxy Primer or HP1100 Acrylic Metal Primer.

Galvanized, Aluminum and Non-Ferrous Metals:

Prime new or un-rusted metal with HP1100 Acrylic Metal Primer or HP1750 Waterborne Bonding Primer. **Weathered galvanized** should be primed with HP1550 Concrete and Metal Epoxy Primer.

Concrete and Masonry: Prime concrete with one coat of HP1550 Concrete and Metal Epoxy Primer or HP1560 Quick Set Epoxy Floor Sealer.

Previously Painted Surfaces: HP4100 can be applied over most old industrial finishes in good condition. Test patches are recommended to check for wrinkling or lifting of existing coatings. HP1550 Concrete and Metal Epoxy Primer may be used as a barrier coat over all existing coatings.

Compliance & Certifications

MPI NA

Meets CISC/CPMA 1-73a and CISC/PMA 2-75 Specifications

This product has been approved by CFIA (Canadian Food Inspection Agency) for use in Food Processing Facilities.

Mixing Instructions

This is a two-component product and is pre-proportioned for error free mixing. Mix "A" & "B" separately.

- 1.) Carefully empty the entire contents of HP4100 Part B and the contents of HP4100 Part A component resin into a separate metal pail, large enough to hold both Part A and Part B, scraping the sides of both parts to ensure all liquid has been added.
- 2.) Using a drill mixer at low speed, blend this mixture for three to five minutes until completely blended. Keep the mixing blade turning at a slow speed to minimize whipping air into material. Scrape sides of pail during the mixing process.
- 3.) Allow to induce for 30 minutes at 25 °C (77 °F) prior to application.

Pot Life:

3 hours at 25 °C (77 °F)
5 hours at 10 °C (50 °F)
1 hours at 37.8 °C (100 °F)

Limitations

- This product will not cure at surface temperatures below 1.7 °C (35 °F).
- This product will amber and chalk if exposed to sunlight. Where colour and gloss retention is important, top-coating will be necessary.

Technical Assistance

Available through your local authorized independent Benjamin Moore retailer.

call 1-866-708-9180
visit www.benjaminmoore.ca

Application

Airless Spray (Preferred Method): Tip range between .019 and .021. Total fluid output pressure at tip should not be less than 2100 psi.

Air Spray (Pressure Pot): 704 or 765 air cap and Fluid Tip E.

Brush: Natural Bristle only

Roller: Industrial Cover with Phenolic core 6.35 mm – 12.7 mm (¼" – ½") nap.

NOTE: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with HP7040. Do not thin.

Where non-skid characteristics are desired, hand broadcast an appropriate anti-slip aggregate into the wet film then back-roll to encapsulate. HP6300 works well for opaque finishes although will be noticeable in clear finishes.

All epoxy coatings will chalk and fade if applied on exterior surfaces subjected to direct sunlight. Where colour and gloss retention is important, top-coating will be necessary. HP4100 will stain with prolonged exposure to some solvents and chemicals or in kennels if exposed to animal waste. This staining will not affect the durability or protective qualities of the coating. Do not apply if material, substrate or ambient temperature is below 1.7 °C (35 °F). Relative humidity should be below 90%. Do not apply if within 5 degrees of dew point or if rain is expected within 12 hours of application.

Clean Up

Wash brushes, rollers, and other painting tools with HP7040 Epoxy Thinner immediately after use. Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with HP7040.

CHEMICAL RESISTANCE GUIDE (NON-IMMERSION)

Fresh Water	Excellent
Salt Water	Excellent
Acids	Excellent
Alkalis	Good
Solvents	Good
Fuel	Good
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Good
Neutral Salt Solutions	Excellent

TEST DATA

Flexibility (ASTM D1737)	Pass 6.35 mm (¼") Mandrel
Sag Resistance (ASTM D4400)	Passes 12 mils
Dry Heat Resistance	93 °C (200 °F)
Wet Heat Resistance	65.5 °C (150 °F)
Adhesion (ASTM D3359)	Pass 5B
Abrasion Resistance (ASTM D4060) CS-17 Wheel, 1000g load	75 mg loss after 1000 cycles
Humidity (ASTM D4585) (2 coats / 1000 Hours)	Face Corrosion: None Face Blistering: None Rating: 10, Rust: 0.00%
Salt Spray (ASTM B117) (2 coats / 1000 Hours)	Face Corrosion: None Face Blistering: None Rating: 10, Rust: 0.00%

Environmental Health & Safety Information

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use only non-sparking tools. Take action to prevent static discharges. Keep cool.

CAUTION: All floor coatings may become slippery when wet. Where non-skid characteristics are desired, use an appropriate anti-slip aggregate.

**KEEP OUT OF REACH OF CHILDREN
FOR PROFESSIONAL USE ONLY**

**Refer to Safety Data Sheet for additional health
and safety information.**