Benjamin Moore®

HP | HIGH PERFORMANCE

HP4600

Epoxy Mastic Semi-Gloss

General Description

HP4600 Epoxy Mastic is a high-solids, surface-tolerant coating that is excellent for use in environments where chemical and abrasion resistance is required. This product is formulated for application direct to properly prepared ferrous and non-ferrous metal, concrete, and other masonry substrates. Additionally, Epoxy Mastic offers long-term rust prevention and is suitable for use for protecting concrete substrates in secondary containment and can also be used for immersion applications.

- High solids and high build
- Surface-tolerant
- Multi-surface
- Hard scratch- and impact-resistant coating

Usage

Intended for use on hand prepared rusty ferrous metal, abrasive blast cleaned and hydro-blasted ferrous metal, blasted concrete, and over a wide range of intact aged coatings. Use in industrial maintenance, coastal structures, pulp and paper plants, food and beverage plants, structural steel, tank exteriors, bridges, offshore, marine and immersion in fresh or salt water.

Colours	NA
Bases	7B, 8B, 9B
Colorant System	Industrial

Technical Data

Vehicle		Polyamide epoxy
Volume Solids (mixed)		79 ± 2%
Spread Rate Per 3.79 L		16.3 – 25.5 sq. m. (175 – 275 Sq. Ft.)
Recommended Film Thickness	Wet:	5.8 – 9.2 mils
	Dry:	4.6 – 7.2 mils
Depending on surface texture and porosity.		
Dry Time @ 25 °C (77 °F) @ 50% RH	To Touch:	4 hours
	To Recoat:	12 hours
SERVICE TIME: Light Industrial Use: 72 Hours.		
Surface Temperature During Application	Min:	7.2 °C (45 °F)
	Max:	37.8 °C (100 °F)
Viscosity		93 ± 4 KU
Flash Point		27 °C (80 °F) or greater (TT-P-141, Method 4293)
Sheen / Gloss		45 – 55 @ 60°
Clean Up		HP7040
Thinner		Do not thin
Mixed Ratio (by volume)		1 : 1
Induction time @ 25 °C (77 °F)		15 minutes
Pot Life @ 25 °C (77 °F)		2 hours
Weight Per Gallon (mixed)		5.9 kg (13 lbs.)
Storage Temperature	Min:	7.2 °C (45 °F)
	Max:	35 °C (95 °F)
VOC (Catalyzed)		199 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: HP4600 Epoxy Mastic can be applied directly to prepared ferrous metal In areas where adequate surface preparation is not possible the use of HP1550 Concrete & Metal Epoxy Primer is recommended.

Galvanized, Aluminum and Non-Ferrous Metals: HP4600 Epoxy Mastic can be applied directly to all non-ferrous metal that has been thoroughly cleaned.

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: HP4600 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	101, 116

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 HP4600 Part B and the contents of HP4600 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 induct for 15 minutes at 25 °C (77 °F) prior to application.

Pot Life: 2 hours at 25 °C (77 °F)

Limitations

- This product will not cure at surface temperatures below 45 °F (7.2 °C).
- 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 .017 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.

All epoxy coatings will chalk and fade if applied on exterior surfaces subjected to direct sunlight. All epoxies tend to yellow. Where colour and gloss retention is important, top-coating will be necessary. HP4600 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 7.2 °C (45 °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	Good
Alkalis	Excellent
Solvents	Excellent
Fuel	Excellent
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Excellent
Neutral Salt Solutions	Excellent

TEST DATA	
Direct Impact Resistance	90 in. ob.
Flexibility (ASTM D1737)	Pass 1/4" Mandrel
Persoz Pendulum Hardness	170
Reverse Impact Resistance	40 in. lb.
Steam Resistance	Yes
Dry Heat Resistance	121 °C (250 °F)
Wet Heat Resistance	65.5 °C (150 °F)
Adhesion (ASTM D3359)	Pass 5B
Abrasion (ASTM D4060)	1 kg load/1000 cycles/CS-17 Wheel: 80 mg loss
Humidity (ASTM D4585)	Face Corrosion: None Face Blistering: None
Salt Spray (ASTM B117) **(1 coat / 6 mils DFT / 3000 Hours)**	Face Corrosion: None Face Blistering: None

Environmental Health & Safety Information

Harmful if swallowed
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause genetic defects
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause respiratory irritation
May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Prevention: 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.

Response: IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use CO_2, dry chemical, or foam for extinction.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.

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.