



HP | HIGH PERFORMANCE

HP5000

Aliphatic Urethane Gloss

General Description

HP5000 Aliphatic Urethane is a multi-use, non-yellowing, two-component urethane appropriate for use on both metal and masonry. This product provides excellent gloss and colour retention when used on exterior surfaces exposed to sunlight and rain, and the highly cross-linked formula provides superior chemical and abrasion resistance. Aliphatic Urethane is ideal for use as a non-sacrificial anti-graffiti coating in clear or pigmented colors when using commercial graffiti removers. This is a two-component product with a mix ratio of 4.2:1 (A:B) by volume. The kit components are already premeasured to the mix ratio. No measuring required. Do not mix partial kits.

- High chemical and abrasion resistance
- Outstanding UV protection
- High solids
- Non-yellowing

Usage

Properly prepared and primed steel, iron, non-ferrous, concrete, and fiberglass. Ideal for food and beverage processing, industrial maintenance, paper and pulp processing, transportation, industrial flooring, general metal finishing / fabrication, chemical processing, commercial structures, tank exteriors and other areas requiring a long life, performance urethane.

Colours	Clear (00), White (01), Black (80)
Bases	7B, 8B, 9B
Colorant System	Industrial

Technical Data

Vehicle	Aliphatic Urethane		
Volume Solids (mixed)		72 ± 2%	
Spread Rate Per 3.79 L		32.5 – 46.5 sq. m. (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:	2 hours	
	To Recoat:	8 hours	
SERVICE TIME: Light Industrial Use: 24 hours.			
Moderate to Heavy Industrial Use: 72 hours			
Recoat after 72 hours: Abrade the surface to ensure proper inter-coat adhesion.			
Surface Temperature	Min:	10 °C (50 °F)	
During Application	Max:	37.8 °C (100 °F)	
Viscosity		76 ± 4 KU	
Flash Point		36.7 °C (98 °F)	
	(TT-P-141, Method 4293)		
Sheen / Gloss		85+ @ 60°	
Clean Up		HP7000	
Thinner		Do not thin	
Mixed Ratio (by volume)		4.2 : 1	
Induction time @ 25 °C (77 °F)		10 minutes	
Pot Life @ 25 °C (77 °F)		3 hours	
Weight Per Gallon (mixed)		4.9 kg (11 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: HP1550 Concrete and Metal Epoxy Primer is recommended in areas where adequate surface preparation is not possible. In highly corrosive areas where additional rust inhibitive qualities are required, prime with one coat of HP4600 Epoxy Mastic.

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, HP1560 Quick Set Epoxy Floor Sealer.

Previously Painted Surfaces: HP5000 can be applied over most 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.

Fiberglass: Can be applied directly to clean, previously unpainted fiberglass. Scuff sand fiberglass to promote better adhesion

Compliance & Certifications

MPI 72, 83, 105, 205

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 HP5000.90 Part B catalyst into the can of HP5000 Part A component resin. Part A container is short filled to accept entire contents of Part B catalyst.
- 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 10 minutes at 77 °F (25 °C) prior to application.

Pot Life: 3 hours at 77 °F (25 °C)

Component A		Component B		Total Yield
HP5000 .80 gal.	+	HP5000.90 .20 gal.	=	1 gallon

Limitations

- Do not apply if air or surface temperatures are below 10 °C (50 °F) or above 37.8 °C (100 °F)
- This product is not intended for immersion service.
- Coated surfaces may discolor under tires due to plasticizer migration.

Technical Assistance

Available through your local authorized independent Benjamin Moore retailer.

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

Application

Airless Spray: Tip range between .015 and .019. Total fluid output pressure at tip should not be less than 2400 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 to 12.7 mm (¼” – ½”) nap.

NOTE: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with HP7000. 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.

Do not apply if material, substrate or ambient temperature is below 10 °C (50 °F). Relative humidity should be below 85%. 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	Excellent
Solvents	Excellent
Fuel	Excellent
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Excellent
Neutral Salt Solutions	Excellent

TEST DATA	
Flexibility (ASTM D1737)	Pass 4.6 mm (3/16”) Mandrel
Dry Heat Resistance	148.8 °C (300 °F)
Wet Heat Resistance	51.6 °C (125 °F)
Adhesion (ASTM D3359)	Pass 5B
Accelerated Weathering (ASTM G53) 1000 Hours 1 coat HP1550, 2 coats HP5000	95% Gloss Retention < 1.5 DE Color Change (CMC)
Salt Spray (ASTM B117) 400 hours (1 coat HP1550, 2 coats HP5000)	Rust Breakthrough: 10 Rating Rust Area: 0.01%
Abrasion Resistance (ASTM D4060) Taber (CS-17 Wheel, 1000g load, 1000 cycles)	44 mg. loss

Environmental Health & Safety Information

May cause an allergic skin reaction

May cause genetic defects

May cause cancer

Suspected of damaging fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

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. 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.

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. In case of fire: Use CO2, 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.