

### General Description

**HP4420 Waterborne Epoxy** is a durable, 2- component, chemical and abrasion resistant coating for both horizontal and vertical surfaces for use in commercial and industrial environments. This fast-drying epoxy is well suited for use on high traffic concrete floors exposed to foot, forklift, and vehicular traffic in addition to vertical surfaces needing a high performance solution. When thinned, HP4420 can be used as a sealer on bare concrete, as well as a high build, full broadcast flooring system. Additionally, this product may be applied to new (high pH) concrete along with most generic coating types without the fear of lifting or wrinkling.

- Self-sealing
- 24-hour return-to-service
- High build for floors
- Can be applied direct to new (high PH) concrete

### Usage

Properly prepared and primed steel, iron, non-ferrous metals, concrete, wood and drywall. HP4420 is designed for use in food and beverage processing plants, warehouses, industrial refurbishment, healthcare facilities, schools, industrial and commercial flooring, and other areas where a performance epoxy is needed which concerns that accompany conventional solvent thinned epoxies.

<b>Colours</b>	Silver Gray (70), Battleship Gray (75)
<b>Bases</b>	7X, 8X, 9X
<b>Colorant System</b>	Gennex

### Technical Data

<b>Resin</b>	Amine Epoxy	
<b>Pigment</b>	Titanium Dioxide	
<b>Volume Solids (mixed)</b>	64 ± 2%	
<b>Spread Rate Per 3.79 L</b>	7.9 – 37.2 sq. m.	
<b>Refer to "Application"</b>	(85 – 400 Sq. Ft.)	
<b>Recommended</b>	Wet:	3.0 – 19.0 mils
<b>Film Thickness</b>	Dry:	2.0 – 12.0 mils
Depending on surface texture and porosity.		
<b>Dry Time @ 25 °C</b>	To Touch:	4 hours
<b>(77 °) @ 50% RH</b>	To Recoat:	7 – 8 hours
<b>Service Times: Light Industrial Use:</b> 24 hours.		
<b>Moderate to Heavy Industrial Use:</b> 72 hours		
<b>Recoat after 72 hours:</b> Abrade the surface to ensure proper inter-coat adhesion.		
<b>Surface Temperature</b>	Min:	12.8 °C (55 °F)
<b>During Application</b>	Max:	37.8 °C (100 °F)
<b>Viscosity</b>	76 ± 4 KU	
<b>Flash Point</b>	> 99 °C (210 °F)	
<b>Sheen / Gloss</b>	30 – 40 @ 60°	
<b>Clean Up</b>	Warm, soapy water	
<b>Thinner</b>	Water	
<b>Mixed Ratio (by volume)</b>	3 : 1	
<b>Induction time @25 °C (77 °F)</b>	None	
<b>Pot Life @ 25 °C (77 °F)</b>	45 minutes	
<b>Weight Per Gallon (mixed)</b>	6.0 kg (13.4 lbs.)	
<b>Storage Temperature</b>	Min:	7.2 °C (45 °F)
	Max:	35 °C (95 °F)
<b>VOC (Catalyzed)</b>	< 50 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 10 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

**Concrete and Masonry:** Self-priming, refer to "thinning".

**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:** Clean oil from new galvanized metal by cleaning with HP6000 Oil & Grease Emulsifier. Prime new or un-rusted metal with HP1100 Acrylic Metal Primer or HP1750 Waterborne Bonding Primer.

**Drywall and Cured Plaster:** Self-priming

**Wood:** Sand surfaces. Prime bare spots and new wood with an acrylic primer/sealer/undercoater or with HP4420.

**Previously Painted Surfaces:** HP4420 can be applied over most finishes in good condition.

### Compliance & Certifications

<b>Eligible for LEED® v4</b>	✓
<b>CDPH Emissions Certified</b>	✓
<b>Eligible for CHPS low emitting credit</b> (Collaborative for High Performance Schools)	✓

### 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 HP4420.90 Part B catalyst into the can of HP4420 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 incorporated. Keep the mixing blade turning at a slow speed to minimize whipping air into material. Scrape sides of pail during the mixing process.
- 3.) Add water to reduce the material based on your application and mix for another 3–5 minutes. Refer to "thinning"
- 4.) Once completely mixed, use immediately

**Pot Life:** 45 minutes at 25 °C / 77 °F

### Limitations

- Do not apply if air or surface temperatures are below 12.8 °C (55 °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.
- Will chalk and fade if applied on exterior surfaces subjected to direct sunlight.

### Technical Assistance

Available through your local authorized independent Benjamin Moore retailer.

call 1-866-708-9180  
visit [www.benjaminmoore.ca](http://www.benjaminmoore.ca)

## Application

**Airless Spray:** Tip range between .015 and .017. Total fluid output pressure at tip should be between 3000 and 3600 psi.

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

**Brush:** Nylon/polyester

**Roller:** Phenolic core, 9.5 mm – 12 mm nap.

**Squeegee:** Pour the catalyzed material onto the floor in thin ribbons. Using a smooth/notched blade squeegee spread the poured material by pulling the squeegee toward the applicator and spread material at a rate not to exceed 13.9 sq. m. (150 Sq. Ft.) per 3.79 L. Apply as evenly as possible working from left to right then back again.

**Spread Rate based on application per 3.79 L kit.**

**As a primer/sealer:**

27.9 – 37.2 sq. m. (300 – 400 Sq. Ft.)

**As an intermediate or finish coat (brush and roll):**

18.6 – 27.9 sq. m. (200 – 300 Sq. Ft.)

**As an intermediate or finish coat (squeegee/back-roll):**

7.9 – 13.9 sq. m. (85 – 150 Sq. Ft.)

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 mix less than full batch/container quantities.

Do not apply if material, substrate or ambient temperature is below 12.8 °C (55 °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.

## Thinning

When used as a sealer, HP4420 should be thinned with up to 20% by volume of clean tap water. Intermediate and topcoats should be thinned with 10-15% water, depending on application method and atmospheric conditions.

Application	3.8 L Kit	18.9 L Kit
Primer/Sealer	682 mL (20 fl. oz.)	2.8 L (2.9 quarts)
Intermediate/Finish	284 – 426 mL (10 – 15 fl. oz.)	1 – 1.7 L (1.2 – 1.8 quarts)

## Clean Up

Wash brushes, rollers, and other painting tools with warm, soapy water immediately after use.

## Additional Notes

All floor coatings can be slippery when wet. Where nonskid characteristics are desired, hand broadcast an appropriate anti-slip aggregate into the wet film then back-roll to encapsulate. HP6300 Anti-Slip Aggregate works well for non-clear coats.

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. This product 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. Will not cure at surface temperatures below 10 °C (50 °F).

## Test Data

TEST DATA	
Flexibility (ASTM D522)	Pass 3/16" Mandrel
Dry Heat Resistance (continuous)	93.3 °C / 200 °F
Wet Heat Resistance	65.6 °C / 150 °F
Pull-Off Adhesion (D7234)	480 PSI
Pencil Hardness (one week cure)	5H
Abrasion Resistance (ASTM D4060) Taber (CS-17 Wheel, 1000g load, 1000 cycles)	62.4 mg. loss

CHEMICAL RESISTANCE GUIDE (NON-IMMERSION)	
Fresh Water	Excellent
Salt Water	Excellent
Acids	Good
Alkalis	Good
Solvents	Excellent
Fuel	Good
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Good
Neutral Salt Solutions	Excellent

## Environmental Health & Safety Information

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

**IMPORTANT:** Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

**FOR PROFESSIONAL USE ONLY  
PROTECT FROM FREEZING**

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