



#### DESCRIPTION

Puma-Crete 401-HFB® is a heavy duty floor, available in several textures. It is a very low odor, easy-to clean, troweled urethane mortar floor, designed to provide excellent resistance to abrasion, chemical attack and other physical aggression. It is designed for manufacturing facilities, especially food & beverage processing. Features include resistance to heavy traffic, chemicals and wet conditions, and maintains a slip resistant finish.

#### COMPOSITION

Water dispersed polyurethane resin system combined with graded silica aggregates, and polymeric resin top coat.

#### APPEARANCE

Medium to high gloss finishes available. Surface is easy-to-clean. *Textures available include:* smooth, orange peel, light, medium, or rough\* *note: Rough texture requires scrub brushes or high pressure water wash.*

**Meets ADA Standard: Coefficient of Friction (.6)**

#### DURABILITY

Resistant to impact, abrasion, and heavy loading from fork trucks, pallet jacks and carts, commonly found in industrial facilities. Withstands thermal shock and cycling, including live steam, hot washdowns, and the surface does not support the growth of bacteria.

#### WATER AND MOISTURE TOLERANCE

Handles up to 25 lbs of water vapor transmission and over 99% concrete internal RH. The flooring functions as a vapor mitigation topping system.

#### THICKNESS

Typical 1/4 inch (6 mm)

#### SUBSTRATES

Concrete, structurally sound toppings including ceramic, quarry tile, brick, and polymer modified screeds.

#### FOOD SAFETY CERTIFICATION

Certified and warranted to meet minimum standards for USDA, SQF, IFS, FSSC2200, and BRC inspections/standards.

#### APPLICATION CONDITIONS

60-85°F (16°-29°C) Best results are achieved at 70°F (21°C). For job site temperature below 60°F, or above 80°F, consult PUMA-CRETE tech support for information on extending working time.

#### APPLICATION

Puma-Crete HFB is a two coat system. Includes a screeded, cementitious urethane mortar, and a polymeric lock coat which provides an easy to clean, medium to high gloss, attractive surface finish. Top Coat of 2 component polymeric, high gloss coating. Apply using cam rake w/ #2 (3/16" system) or #3 (1/4" system) cams.

#### LOCK COAT / TopCoat

**Puma-Crete® 107-PumaPoxy:** this polymeric top coat locks in the silica, provides enhanced gloss, abrasion and chemical resistance, along with an easy to clean, anti microbial finish.

**Optional Puma-Crete® 109-PumaSpartic Topcoat:** cures down to +20 deg F, and can be driven on with forklifts within a few hours.

#### CURE SCHEDULE (70 deg F)

12 hours foot traffic, 24 hrs hvy traffic \* 7 days for full chemical resistance.

#### CHEMICAL RESISTANCE

Excellent resistances to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.

#### PACKAGING

Puma-Crete HFB® is manufactured in pre-measured, easy to use units.

#### BASE COAT / SLURRY (3-component system)

**Coverage:** 1/4 inch floor: 20 ft<sup>2</sup>/unit \* (use #3 cam rake)

**RESIN:** 1 pre-measured container

**HARDENER:** 1 pre-measured container

**AGGREGATE** 1 bag (38 lb)

**BROADCAST SILICA** 40/60 mesh or 20/40 mesh \* 50 lb bag

\* 20/40 recommended for areas w/ oils, detergents/foams usage..

#### TOP COAT 107-PumaPoxy

**Part A:** 1 or 5 gal containers

**Part B:** 1 or 5 gal containers

**Coverage:** 110-150 ft<sup>2</sup>/unit \*

\* **note:** Coverages shall vary depending on application and contour of substrate. Condition materials to 70 deg F, prior to use, for best performance.

#### MAINTENANCE

Regular cleaning of the applied system is recommended in order to maintain slip resistant properties and cosmetics. Normal cleaning agents (such as Simple Green) w/ standard auto floor scrubber. *Note: brush or high pressure hose required for rough texture finish, if required.*

#### COLORS AVAILABLE

Standard colors are: Tile Red, Gray, Blue

*Additional colors available; see Puma-Crete color chart.*

#### TECHNICAL DATA

Compressive strength:	ASTM C579	8,820 psi
Thermal Distortion	Passing up to	270 dF
Thermal Coeff. of Thermal Expansion	ASTM C531	1.5x10e5
Density	ASTM C905	130 pcf
Water Absorption	MIL-PRF-3134	0.64%
Surface Hardness 85-90 Durometer "D"	ASTM D2240	
Adhesion 100% failure in conc.	ASTM D4541	400psi
Flammability-Critical Radiant Flux	ASTM E648	1.07 watts/sq cm
Flammability	ASTM D635	Self Extinguishing
Tensile strength:	ASTM C307	4,785 psi
Flexural strength:	ASTM C580	9,840 psi
Shear Strength:	ASTM D732	4,965 psi
Abrasion resistance (method A)	ASTM C779	.020 in @ 60 min
Impact Strength	ASTM D4226	>160 in-lb
VOC	ASTM D3960	.083 lb/gal
Resistance to Fungi Growth	ASTM G21	Rating of 1, passes
Coefficient of Friction		> 0.60

#### HEALTH AND SAFETY

This is a water based and 0 gram VOC/Liter product system. Please read the material safety data sheets, for further detailed information on safe handling and use of this product.

**SHELF LIFE:** 1 year from date of manufacture (un-opened).

#### CONDITIONS OF USAGE:

Installation of all products purchased must be by professional installers periodically published by PUMA-CRETE or otherwise approved by PUMA-CRETE in writing. Modification to any of PUMA-CRETE's products voids the warranty. The installer shall maintain a written contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PUMA-CRETE reserves the right of inspection of any installed product, installation and maintenance records and records of field conditions and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply for products or materials that have been paid for full. This writing constitutes the sole and only agreement of warranty relating to PUMA-CRETE products.