

Product Data Sheet For:

PLEXICRETE HD

Description:

PlexiCrete HD is a self-priming four component, 100% solids, high performance urethane mortar flooring system comprised of a urethane binder, pigments, powders and cementitious aggregates. This system is installed at a nominal thickness ranging from 3/16", 1/4", 3/8" to 1/2" depending on application requirements. It is designed for a variety of applications, new or damaged, on concrete. This system provides conventional protection plus **thermal-shock resistance**, with a wide range of both caustic and acid resistance.

PLEXICRETE HD ADVANTAGES:

- **Chemical Resistance** – polyurethane technology provides superb protection against caustics, organic and inorganic acids, solvents and most chemicals used today in industry.
- **Thermal Shock Resistance** – PlexiCrete HD and concrete have a similar coefficient of thermal expansion from under -50°F to 265°F. PlexiCrete HD withstands continuous hot water washdowns.
- **Impact Resistance** – while epoxy and vinyl esters can crack and spall, PlexiCrete HD will absorb an impact and distribute the force throughout the system.
- **Downtime** – no primers or sealers are required due to the **resin-rich** properties. Fast curing in less than 6 hours. Full cure in 12 hours.
- **Non-Slip** – the surface can be customized to any facility requirements...from decorative self-leveling to aluminum-oxide solid color broadcast. ADA compliant under wet and dry conditions.
- **Odorless Materials** – no tainting of food products due to freedom from objectionable odors during application. VOC compliant.
- **Thermal Comfort** – PlexiCrete HD provides superior insulation over concrete.
- **Hygiene** – PlexiCrete HD eliminates tile joints, minimizes cracking as occurs in traditional monolithic flooring, and eliminates potential bacteria growth.
- **Hydrostatic Pressure** – PlexiCrete HD will withstand up to 14-20 lbs. of vapor transmission in the slab without delamination. It also allows the concrete to breathe and is a solution for many moisture problems
- **Color Stable** – PlexiCrete HD will remain color stable and will not change color over time.

Physical Properties:

Compressive Strength	ASTM C-579	10,500 psi
Tensile Strength	ASTM C-307	2,500 psi
Coefficient of Thermal Expansion	ASTM C-531	1.6 x 10(-5) °F
Density	ASTM C-905	130 lbs./ft3
Resistance to Fungi Growth	ASTM G-21	passes, rating of one
Impact Resistance	ASTM D-2794	no visible damage or deterioration at min 160 inch-pounds
Comprehensive Modulus	ASTM C-469	1.7 x 10(5) psi
Flexural Strength	ASTM C-580	2,625 psi
Flexural Modulus of Elasticity	ASTM C-580	2.6 x 10(6) psi
Thermal Conductivity	ASTM C-177	6.8 BTU-in/hr-ft ² °F
Water Absorption	ASTM C-413	<0.03%
Abrasion Resistance	ASTM D-4060 @ 1000 cycles	0.05 mg loss
Slip Resistance ADA Minimum	ASTM F-1679	Greater than .05 (All textures wet & dry)
Adhesion	ASTM D-4541	500 psi 100% concrete failure, exceeds concrete
Hardness	ASTM D-2240	80-84
Heat Resistance		≥250°F (Continuous exposure)
Bond Strength	ACI 503R	>400 psi 100% concrete failure
Flammability	ASTM E-648	Class I – Self Extinguishing

Areas of Application:

- Food & Beverage (*FDA/USDA Accepted*)
- Bakery
- Food Processing
- Dairy
- Meat Processing
- Soda & Juice Facilities
- Brewery
- Prepared Foods
- Commercial Kitchens
- Chemical Processing
- Animal Rooms
- Secondary Containment
- Pharmaceutical
- Pulp & Paper

Chemical Resistance:

PlexiCrete HD flooring system resists spills and in many cases immersion of:

<u>Acid</u>	<u>Alkali</u>
Hydrochloric	KOH
Phosphoric	Ammonium Chloride
Sulfuric	Sodium Hydroxide

Also resists hot fatty oils, diesel fuel, and organic solvents (MEK, Acetone, Toluene)

Full chemical resistance chart available upon request

Packaging:

1 unit is comprised of:

- 128 oz. of PlexiCrete Resin (Part A)
- 100 oz. of PlexiCrete Hardener (Part B)
- 8 oz. of Color Pack
- 50 lb. bag of PlexiCrete HD Aggregate

Colors:

Unlike competitors' products, PlexiCrete HD is available in the following colors:

- Tile Red
- Granada Gray
- Desert Brown
- Blue
- Green
- Saber Gray
- Dusk Gray

Surface Preparation:

PlexiCrete HD and all of our high performance resurfacing systems always require surface preparation by mechanical means only: Shotblasting and diamond grinding. **No other preparation method is acceptable for the long-term success of any floor.**

Installation:

PlexiCrete HD requires a degree of knowledge of industrial flooring that is unique to urethane mortars. This includes proper preparation of surface and preparation of PlexiCrete installation. Please contact us for a copy of our comprehensive installation instructions.

Notice: The technical data contained herein are true and accurate to the best of our knowledge. All products are offered and sold subject to Plexi-Chemie Standard Conditions of Sale. Published technical data and instructions are subject to change without prior notice.

Please be sure the Safety Data Sheet is read and understood before using any Plexi-Chemie product.