

**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 quartz aggregates. This system is installed at a nominal thickness ranging from 1/8", 3/16", 1/4", 3/8" to 1/2" depending on application requirements. It is designed for a variety of applications on concrete or steel. This system provides conventional protection plus **thermal-shock resistance**, with a wide range of both caustic and acid resistance. PlexiCrete HD can also be installed at 1/2 inch or greater, depending on surface requirements, by adding PlexiClad aggregate.

**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.
- **Non-Slip** – the surface can be customized to any facilities requirements...from decorative self-leveling to aluminum-oxide solid broadcast. ADA compliant.
- **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 or other plastic flooring systems.
- **Hygiene** – PlexiCrete HD eliminates tile joints, minimizes cracking as occurs in traditional monolithic flooring, and reduces potential bacteria growth.
- **Hydrostatic Pressure** – PlexiCrete HD will withstand up to 14 lbs of vapor transmission in the slab without delamination. It also allows the concrete to breathe and is a solution for many moisture problems

**Physical Properties**

Compressive Strength	ASTM C-579	8,750 psi
Tensile Strength	ASTM C-307	1,250 psi
Coefficient of Thermal Expansion	ASTM C-531	1.5 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 <sup>2</sup> °F
Water Absorption	ASTM C-413	<0.03%
Abrasion Resistance	ASTM D-4060 @ 1000 cycles	0.05 mg loss
Slip Resistance	ASTM F-1679	Greater than 1.05 (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)
Flammability	ASTM E-648	Class I

## 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 systems resist spills and in many cases immersion of:

### Acid

Hydrochloric  
Phosphoric  
Sulfuric

### Alkali

KOH  
Ammonium Chloride  
Sodium Hydroxide

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

*Full chemical resistance chart available upon request*

## Colors

Unlike competitor's products, PlexiCrete HD is available in a wide variety of colors

### *Solid Colors*

- Tile Red
- Granada Grey
- Desert Brown
- Sky Blue
- Other Pastels

### *Broadcast Colors*

Range of color quartz available for broadcast. See Plexi-Chemie color chart.

## Surface Preparation

PlexiCrete HD and all of our high performance resurfacing systems always require shotblasting and mechanical preparation. No other preparation method is acceptable for the long-term success of any floor.

## Installation

PlexiCrete HD uniquely offers a combination of outstanding performance with ease of installation. Contact us for a copy of our comprehensive installation instructions.

***Leader in BBP (Benzyl Butyl Phthalate) free seamless urethane mortar flooring.***

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.**