

# PolyArmor® *Hi-Mod™* 375

**FAST CURE RIGID RE-SURFACER SYSTEM** (*patent pending*)

## ▶ Product Data

Polyarmor® Hi-Mod 375 is a structural polyurea. Superior physical properties, 100% solids, highly chemical resistant, extremely abrasion resistant, tough two part RIGID spray coating giving rapid and consistent cure in applications ranging from 20° F to over 300° F. Polyarmor® Hi-Mod 375 is specifically designed to be used in demanding installations requiring a rigid coating with superior physical properties and moderate chemical resistance. Consult Visuron Technologies for guidance. Applications can normally be reopened to traffic and service in minutes. More demanding use should be allowed to cure for at least rigid coating with superior physical properties and very high durability in harsh chemical environments. Consult the chemical resistance chart or Visuron for guidance. Applications can normally be reopened to traffic and service in minutes. More demanding use should be allowed to cure for at least eight hours.

Polyarmor® Hi-Mod 375 is well suited as a concrete re-surfacing material in place of polymer modified concrete. It is very fast cure and permits extremely short down times with no VOC's and extremely low odor.

- ◆ Good chemical resistance
- ◆ 100% solids, no VOC's
- ◆ Not brittle, 7-8% elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Abrasion resistant
- ◆ Low perm rate
- ◆ Cures -20° F to 300° F
- ◆ Return to service in 60 min.
- ◆ High strength
- ◆ Bridges moving gaps up to 1/16 inch wide
- ◆ Waterproofs

## ▶ Typical Uses

All applications where monolithic chemical resistant membrane is required.

- ◆ Concrete Re-surfacer
- ◆ Secondary Containment Areas
- ◆ Tank Linings
- ◆ Waster Water Linings
- ◆ Digester Linings
- ◆ Mechanical Rooms
- ◆ Pulp & Paper Mills
- ◆ Fertilizer Plants
- ◆ Petrochemical facilities
- ◆ Pipe Line Coating
- ◆ Cooling Tower Lining
- ◆ Petroleum Prod. & Storage
- ◆ Oil & Gas Transmission
- ◆ Refineries/Manufacturing Facilities

## ▶ Typical Application Properties

Polyarmor® Hi-Mod 375 is a plural-component, fast cure, spray polyurea system. Equal volumes of parts "A" and "B" are proportioned and dispensed through high pressure, high temperature spray equipment. Consult Visuron for correct machine conditions.

- ◆ Gel time: 6 sec
- ◆ Tack-free time: 30 sec
- ◆ Open to light traffic: 60 min
- ◆ Open to chemical exposure: 8 hrs
- Bond Strength (ASTM D-4541)  
(primed substrate)
  - ◆ Concrete: 350-400 psi  
(concrete failure)
  - ◆ Steel: exceed 1600 psi
  - ◆ Wood: 200-250 psi  
(wood failure)



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**COLOR AVAILABILITY: black, light gray, dark gray and beige**  
*"Custom colors available at additional charge"*



## Typical Physical Properties

Typical Physical Properties	Test Method	Value
Tensile Strength (psi)	D-638	7800
Flexural Modules (psi)	D-790	375,000
Elongation %	D-638	7-8
Tear Strength (pli)	D-624	
Shore Hardness ("D" scale)	D-2240	83
Moisture Vapor Transmission	E-96	(perm. In.) 0.010
Abrasion Resistance ( wt. Loss-mg.) H-18, 1000g, 1000 rev. CS-17, 1000g, 1000 rev.	D-6040 D-6040	43 < 2
Flash Point, components ( °F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4 x 10 <sup>-5</sup>
Gel Time / Tack Free		6 sec. / 30 sec.
Flame Spread	E-108	Class A (Comparable to UL 790)
Flexibility Test Gardner impact, in.-lbs. (on 1/32" steel panels) Direct and Indirect	D-2794	> 160

## Installation/Surface Preparation

**Concrete** — Do not apply in wet conditions. Concrete must be structurally sound, free of voids, honeycombs, bug holes and delaminations. Concrete must have at least a 3000 psi minimum compressive strength. An effective vapor barrier must be present for below grade and slab-on-grade projects. Do not apply over unvented steel pan decks or sandwich slab membranes. Maintain all expansion joints. Abrasive blast or tech to remove surface laitance. Emulsifying soaked in contaminants may be required. Consult Visuron Technologies. High degree of cleanliness is necessary. Surface must be dry and sound.

**Substrate Repairs** — All spalls and delaminations must be rehabilitated per ICRI and ACI standards. Rout and seal all cracks over 1/16" with appropriate joint sealants. Pre-fill all bug holes.

**Steel** — Do not apply in wet conditions. Any dissolved salts must be removed to current NACE specifications. Steel must be cleaned and blasted to SSPC-SP-10 or NACE 2 "Near White Metal" with a 4 mil anchor profile for immersion service, 3 mil for less severe conditions. All welds must be ground smooth. Immersion service requires a primer. Consult Visuron Technologies.

**General Surface Preparation** — Mechanical methods such as sandblasting is preferred. Any weak or damaged existing coatings must be removed. Sound existing coatings can possibly be overcoated following abrading and application of Visuron Lap Prep. Verification trials are recommended.

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## ▶ Shelf Life & Storage

Six months in sealed unopened containers. Keep away from extreme heat, freezing and moisture. Never store in direct sunlight.



Clean up with Visuron CS-100 cleaning solvent, MEK, xylene or PGME. Dispose of in accordance with local and federal disposal regulations. See MSDS.

Read and understand the MSDS included with all shipments. Always use products with adequate ventilation and use required PPE. For confined space, use fresh air supply. For open air, use minimum of half-face, twin cartridge respirators approved for MDI. Always adhere to Society of Plastics Industry Safety Standards.