

PolyArmor® Warrior™ 1100

LOW FRICTION FAST CURE SPRAY ELASTOMER SYSTEM

Product Data

Polyarmor® WARRIOR™ 1100 is the next generation polyurea. Superior physical properties, 100% solids, highly chemical resistant, extremely abrasion resistant, tough, two part elastomeric spray coating giving rapid and consistent cure in applications ranging from -20° F to over 400° F. "WARRIOR 1100" is specifically designed to be used in demanding installations requiring an elastomeric 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. Severe chemical use should be allowed to cure for eight hours.

WARRIOR™ 1100 is the first choice where a tough, flexible, impact resistant, waterproof, chemical resistant, abrasion resistant coating is required in extremely short down times with no VOC's and extremely low odor.

- ◆ **LOW FRICTION**
- ◆ Very good resistance to solvents, acids and bases
- ◆ 100% solids, no VOC's
- ◆ Flexible, 220% elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Accepts vehicular traffic
- ◆ Abrasion resistant
- ◆ Very 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, high-slip chemical resistant membrane is required. Especially good for sticky material releasing.

- ◆ 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

Typical Application Properties

WARRIOR™ 1100 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: 6-8 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: 300-350 psi
(concrete failure)
 - ◆ Steel: exceed 1400 psi
 - ◆ Wood: 200-250 psi
(wood failure)



PolyArmor® Warrior™ 1100

LOW FRICTION FAST CURE SPRAY ELASTOMER SYSTEM

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	5000
Elongation (%)	D-638	220
Tear Strength (pli)	D-624	1760
Shore Hardness ("D" scale)	D-2240	62
Moisture Vapor Transmission	E-96	(perm. In.) 0.01
Abrasion Resistance (wt. Loss-mg.)		
H-18, 1000g, 1000 rev.	D-6040	35
CS-17, 1000g, 1000 rev.	D-6040	< 2
Flash Point, components (°F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4×10^{-5}
Gel Time / Tack Free		6-8 sec. / 30-40 sec.
Flame Spread	E-108	Class A (Comparable to UL 790)
Flexibility Test	D-2794	> 160
Gardner impact, in.-lbs. (on 1/32" steel panels)		
Direct and Indirect		
Mandrel Bend:		
Conical Bend (on 1/32" steel)	D-522	Pass
1/4 Mandrel, 25°C (free film, 35-50 mils)	D-1737	Pass
1/4 Mandrel, -20°C (free film, 35-50 mils)	D-1737	Pass

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 3 mil anchor profile for immersion service, 2 mil for less severe conditions. All welds must be ground smooth. Immersion service requires a primer. Consult Visuron Technologies.

PolyArmor® Warrior™ 1100

LOW FRICTION FAST CURE SPRAY ELASTOMER SYSTEM

Installation/Surface Preparation

General Surface Preparation — Mechanical methods such as shotblasting and sandblasting are 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.

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.