

PolyArmor®

PRODUCTS INCLUDED:

- ◆ Polyarmor® 444-370
Fast Set Spray Concrete/Steel
- ◆ Polyarmor® 444-382
Fast Set Heavy Duty Pure Polyurea Coating
- ◆ Polyarmor® 475-375
Aromatic Plural Component Sprayable Polyurea
- ◆ Polyarmor® 490-572
High Elongation Polyurea
- ◆ Polyarmor® 1010 PW
Fast Cure Sprayable Coating/Lining
- ◆ Polyarmor® ABR-330
Abrasion Resistant Heavy Duty/Severe Service
Extremely Low Friction
- ◆ Polyarmor® CFP-68
Highway Marking/Ultra Fast Cure/Severe Service
- ◆ Polyarmor® Hi-Mod™ 375
Fast Cure Rigid Re-Surfacer System
- ◆ Polyarmor® Hi-Slip 850-52-2
Heavy Duty/Severe Service/Extremely Low Friction

- ◆ Polyarmor® Warrior™ 240
Fast Cure Spray Elastomer System
- ◆ Polyarmor® Warrior™ 260
Fast Cure Spray Elastomer System
- ◆ Polyarmor® Warrior™ 1100
Low Friction/Fast Cure Spray
Elastomer System

PRODUCT SELECTION GUIDE
PAGES 49—54



VISURON
TECHNOLOGIES, INC.

PolyArmor®



Product Selector

VISURON PRODUCTS:	Test Method	Tensile (psi)	Test Method	Tear (pli)	Test Method	Elongation (%)	Test Method	Hardness
Polyarmor® 444-370 Fast Set Spray Concrete/Steel	D-638	2750	D-624	430	D-638	425	D-2240	45
Polyarmor® 444-382 Fast Set / Heavy Duty Pure Polyurea Coating	D-638	2850	D-624	525	D-638	450	D-2240	50
Polyarmor® 475-375 Aromatic Plural Component Sprayable Polyurea	D-638	4100	D-638	1440	D-638	200	D-624	58
Polyarmor® 490-572 High Elongation Polyurea	D-638	1800	D-624	325	D-638	800	D-2240	80-85
Polyarmor® 1010-PW Fast Cure Sprayable Coating / Lining	D-638	3650	D-624	920	D-638	525	D-2240	50
Polyarmor® ABR-330 Abrasion Resistant Heavy Duty / Severe Service Extremely Low Friction	D-638	5300	D-624	525	D-638	330	"A" Scale D-2240	50
Polyarmor® CFP-68 Highway Marking / Ultra Fast Cure / Severe Service	D-638	3500	D-624	720	D-638	300	Shore "D"	58
Polyarmor® Hi-Mod™ 375 Fast Cure Rigid Re-Surfacer System (<i>patent pending</i>)	D-638	7800	D-624		D-638	8-Jul	D-2240	83
Polyarmor® Hi-Slip 850-52-2 Heavy Duty / Severe Service / Extremely Low Friction	D-638	4530	D-624	1310	D-638	270	Shore "D"	54
Polyarmor® Warrior™ 240 Fast Cure Spray Elastomer System (<i>patent pending</i>)	D-638	5180	D-624	1395	D-638	240	D-2240	62
Polyarmor® Warrior™ 260 Fast Cure Spray Elastomer System	D-638	5350	D-624	730	D-638	260	D-2240	62
Polyarmor® Warrior™ 1100 Low Friction Fast Cure Spray Elastomer System	D-638	5000	D-624	1760	D-638	220	D-2240	62
PolyPro™ Pro Concrete Primer One Component (2k) Polyurea Moisture Tolerant Solvent Free								
PolyPro™ 2058 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Topcoat	D-638	1280	D-624	265	D-638	200	Shore "D"	45
PolyPro™ 2060 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Topcoat	D-638	1420	D-624	280	D-638	230	Shore "D"	50
PolyPro™ 2062 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Clear Topcoat	D-638	1280	D-624	265	D-638	200	Shore "D"	40
PolyPro™ 6058 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	D-638	6000	D-624	550	D-638	500	Shore "D"	50
PolyPro™ 6060 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	D-638	6000	D-624	550	D-638	480	Shore "D"	50
PolyPro™ 6062 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Clear Topcoat	D-638	4850	D-624	495	D-638	525	Shore "D"	48
PolyPro™ 6120 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	D-638	6200	D-624	580	D-638	450	Shore "D"	56
PolyPro™ 6122 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Clear Topcoat	D-638	5100	D-624	535	D-638	500	Shore "D"	52



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PolyArmor® 444-370

FAST SET SPRAY FOR CONCRETE / STEEL

Product Data

Polyarmor® 444-370 is a 100% solids, fast cure, polyurea spray elastomer coating system which exhibits superior performance characteristics in concrete and steel coating applications. This extremely fast cure protective coating can be applied in temperatures ranging from -20° F to 350° F. Once applied, Polyarmor® 444-370 provides an extremely tough, yet resilient, coating which provides reliable long term protection of concrete, masonry and steel surfaces.

Polyarmor® 444-370 concrete and steel coating system can be applied in film thickness ranging from 10 mils to 250 mils or greater. Multiple coats are necessary for thicker applications.

- ◆ 100% Solids, Meets VOC Regulations
- ◆ Flexible, 425% Elongation
- ◆ Excellent Thermal Stability
- ◆ Good Resistance to a Variety of Solvents, Acids and Caustics
- ◆ Fast Reactivity and Cure
- ◆ Seamless, Resilient, Non-Cracking Elastomer
- ◆ Excellent Corrosion Protection
- ◆ Return Project to Service in 60 Minutes
- ◆ Low Perm Rate
- ◆ Cures From -20° F to 350° F
- ◆ Odorless, No Toxic Vapors
- ◆ U.S.D.A. Approved

Typical Uses

Polyarmor® 444-370 is a superior protective membrane specifically designed for use on concrete, masonry and steel surfaces. Polyarmor® 444-370 can be used to rehabilitate and protect concrete surfaces which have been damaged from mechanical, chemical or temperature related abuse. Polyarmor® 444-370 can be used to protect steel from weather, chemical and chemical vapor related corrosion as well as mechanical related abuse. Polyarmor® 444-370 can be used as a protective coating in:

- ◆ Bottling and Canning Facilities
- ◆ Chemical Plants
- ◆ Cold Storage Facilities
- ◆ Fertilizer Plants
- ◆ Food Processing Facilities
- ◆ Industrial Facilities
- ◆ Manufacturing Facilities
- ◆ Marine Applications
- ◆ Mining Operations
- ◆ Oil and Gas Transmission
- ◆ Petroleum Production and Storage
- ◆ Pulp and Paper Mills
- ◆ Refineries
- ◆ Secondary Containment
- ◆ Walkway and Parking Decks
- ◆ Warehouse Floors
- ◆ Water and Waste Treatment

Typical Application Properties/Chemical Resistance

Test Procedures: ASTM D3912 25° C Exceeds 1 Year

- ◆ Recommended: **R**
- ◆ Recommended Conditional (washdown within 1 hour of spillage) **C**
- ◆ Not Recommended: **N**
- ◆ Suitable for immersion and/or splash and spillage conditions **1**
- ◆ Suitable for occasional/intermittent contact for up to 72 hours **2**

Test Media (CHEMICAL)	Result
Acetic Acid, 10%	C
Ammonium Hydroxide 10% / 20%	R
Diesel Fuel	R
Gasoline/5% MTBE	R
Hydraulic Fluid	R



Test Media (CHEMICAL)	Result
Hydrochloric Acid 5% / 10%	R
Methanol	R
2-Methylbutane	R
Motor Oil	R
MTBE	1

PolyArmor® 444-370

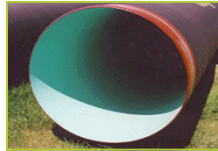
FAST SET SPRAY FOR CONCRETE / STEEL

▶ Typical Application Properties/Chemical Resistance

Test Procedures: ASTM D3912 25° C Exceeds 1 Year

- ◆ Recommended: R
- ◆ Recommended Conditional (washdown within 1 hour of spillage): C
- ◆ Not Recommended: N
- ◆ Suitable for immersion and/or splash and spillage conditions: 1
- ◆ Suitable for occasional/intermittent contact for up to 72 hours: 2

Test Media (CHEMICAL)	Result
NaCl/Water, 10%	R
Phosphoric Acid 10%	R
Potassium Hydroxide 10% / 20%	R
Skydrol	2
Sodium Hydroxide 10% / 20% / 50%	R
Sugar/Water, 10%	R
Sulfuric Acid 5% / 10%	R
Toluene	2
Water	R



▶ Typical Application Properties/Chemical Resistance

Test Procedures: ASTM D1308 Spot Test, 7 Days 25° C

- ◆ Recommended: R
- ◆ Recommended Conditional (washdown within 1 hour of spillage): C
- ◆ Not Recommended: N
- ◆ Suitable for immersion and/or splash and spillage conditions: 1
- ◆ Suitable for occasional/intermittent contact for up to 72 hours: 2

Test Media (CHEMICAL)	Result
Acetone	R
Antifreeze	R
Benzene	R
Benzoic Acid	R
Brine, Saturated	R
Butyl Alcohol	R
Butyl Cellosolve	R
Calcium Hypochlorite	N
Carbon Dioxide	R
Chlorine (5,000 ppw/water)	2
Citric Acid	R
Copper Chromate Arsenic	R
Crude Oil	R
Cyclohexanol	R
Dichloroacetic Acid	C

Test Media (CHEMICAL)	Result
Dimethyl Formamide	N
Ethanol	R
Ethylene Glycol	1
Fertilizer, Liquid 28-0-0	R
Gasoline	R
Hexane	R
Hydraulic Oil	R
Hydrochloric Acid, <30%	R
Lactic Acid, 10%	1
Nitric Acid, 20%	C
Phenol	2
Skydrol	2
Sodium Bicarbonate	R
Sodium Chloride	R
Sodium Hypochlorite, 10%	2

Test Media (CHEMICAL)	Result
Steric Acid	R
Sulfuric Acid, >25%	N
Toluene	C
Trichloroethylene	C
Trisodium Phosphate	R
Urea	R
Vinegar	R
Xylene	C



PolyArmor® 444-370

FAST SET SPRAY FOR CONCRETE / STEEL

► Typical Application Properties/Steel Adhesion/Corrosion Resistance

Test Procedures: ASTM B117 Salt Fog Corrosion Resistance After 1000 Hours Salt Spray Exposure

Test Media (BLISTERING)	Result	Test Media (CORROSION FROM SCRIBE, MM)	Result	Test Media (ADHESION, PSI)	Result
Bare Steel	None	Bare Steel	7.0	Bare Steel	>1500
Epoxy Primer	F, #2	Epoxy Primer	8.0	Epoxy Primer	1100
Urethane Primer	None	Urethane Primer	7.0	Urethane Primer	<1000

1. Applied to 2 mil blast profile steel panels from KTA-Tator
2. Elcometer adhesion

COLOR AVAILABILITY: black, light gray, charcoal, tan & red
"Custom colors available at additional charge"



► Typical Physical Properties

Cured Sealant Properties	Test Method	Typical Value
Shore D Hardness	D-2240	45
Tensile Strength (psi)	D-638	2750
Elongation (%)	D-638	425
Tear Strength Notched (pli)	D-624	430
100% Modulus (psi)	D-638	1250
300% Modulus (psi)	D-638	1900
Abrasion Resistance (wt. loss-mg.) 1000 g, 1000 rev. H-18	D-4060	235
Coefficient of Thermal Coefficient of Thermal Expansion (in/in/°C)		approx. 4×10^{-5}
Moisture Vapor Transmission	E-96	0.060 perms
Solids Content		100%
Gel Time		12 seconds
Tack Free		40 seconds
Open to Traffic		60 minutes

PolyArmor® 444-370

FAST SET SPRAY FOR CONCRETE / STEEL

► Installation/Surface Preparation

Concrete — General—Surface must be structurally sound, cleaned, free of all dirt, grease, old sealant and moisture.

Installations involving concrete slab on or below grade usually require an effective moisture barrier to prevent hydrostatic pressure or moisture vapor transmission through the substrate.

New Concrete — Allow a minimum of 28 days of cure prior to coating application. It is also recommended that the moisture content of the newly poured slab be determined to be within acceptable limits (contact manufacturer for maximum acceptable moisture limits prior to applications of Polyarmor® 444-370) All new concrete surfaces should be lightly shot blasted, sand blasted, hydro blasted, or acid etched to remove all residual curing agents, sealers or waxes.

Old Concrete — The concrete surface must be structurally sound, cleaned and free of all dirt, grease, oils, sealants, coatings and moisture.

All old concrete surfaces should be lightly shot blasted, sand blasted, hydro blasted or acid etched to remove all dirt, grease, oils, sealants and coatings.

Random Cracks, Damaged Control Joints and Concrete Spalls — All random cracks, damaged control joints and spalls should be ground out, routed, hydro blasted or sand blasted, then filled flush to the concrete surface with Action 5 or Action 30 prior to application of Polyarmor® 444-370. See spec data for Action 5 and Action 30 to determine proper sealant.

Priming Concrete — All on grade and above grade applications should be primed with Pronto Prime (see Pronto Prime spec data for details) For product installations at or below freezing temperatures, contact Visuron Technologies Technical Service.

Steel General — Surface must be structurally sound, cleaned, free of all dirt, grease, old sealant and moisture.

Steel should be sand blasted to near white metal followed by thorough post-cleaning to remove grit and all dust prior to application of Polyarmor® 444-370.

If sand blasting is not possible, alternative steel preparation procedures are available. Contact Visuron Technologies Technical Service.

Note: Galvanized steel and aluminum can be coated with Polyarmor® 444-370. Contact Visuron Technologies Technical Service for surface preparation recommendations.

► Shelf Life & Storage

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



PolyArmor® 444-370

▶ **CASE STUDY 1: Waterproofing—Concrete Pit**

PROJECT: Process Pit Water Proofing

OWNER: U.S. Environmental Protection Agency

INSTALLER: Sure Seal, Inc.

SYSTEM: POLYARMOR ® 444-370

COLOR: Black

AREA: 35,000sq. ft.



DISCUSSION: This segmented, ten foot deep poured concrete pit was installed specifically for the purpose of reclaiming PCB contaminated soil.

PRONTO PRIME concrete primer was spray applied to the concrete surface. The concrete was spray sealed with 80 mils. of POLYARMOR 444-370® plural component polyurea.

The sealing operation was commenced within 72 hours of the concrete pour...immediately following removal of the forms. This procedure was precedent-setting. It was carried out under the supervision of P. E. Civil Engineers in conjunction with oversight and recommendations by Visuron Technical Service.

No detrimental effects have been experienced with either the concrete or with the POLYARMOR polymer resulting from coating the three day old green concrete.



▶ **CASE STUDY 2: Concrete Pond Lining**

PROJECT: Fish Rearing Pond Lining

OWNER: U. S. Dept of the Interior Wild Life Service. Green Lake Fish Hatchery. Ellsworth, ME

INSTALLER: A to Z Coatings, Inc.

SYSTEM: POLYARMOR ® 444-370

COLOR: Charcoal

AREA: 50,000 plus sq. ft.

PolyArmor® 444-370

▶ CASE STUDY 2: Concrete Pond Lining

DISCUSSION: Eighty six circular concrete ponds, typically three feet deep and from twenty to forty feet in diameter, were previously lined with epoxy. The linings were failing badly. A successful trial was carried out by polyurea lining one pond. Following a year of satisfactory performance of the trial pond, the customer decided to have all of the ponds lined.

The concrete was sand blasted sufficiently to remove the remaining epoxy. The newly exposed concrete was primed with PRONTO PRIME™ concrete primer where possible. Alternatively, PRO PRIME™ concrete primer was used where fugitive fumes were a problem. The primed ponds were coated with .060 inch thick POLYARMOR® 444-370 plural polyurea.

The rapid turn around time associated with POLYARMOR plural component systems was a primary reason that the customer specified this coating. Their annual inspection and maintenance season are very brief. Prompt completion of the job was a



PolyArmor® 444-382

FAST SET / HEAVY DUTY PURE POLYUREA COATING

Product Data

Polyarmor® 444-382 is a pure polyurea coating. It has excellent physical properties, 100% solids, good abrasion resistance, good chemical resistance, very tough with good cut resistance two part spray coating. Polyarmor® 444-382 gives rapid and constant cure for applications ranging from -20° F to 300° F. It is specifically designed to be used in many installations requiring a flexible coating with good elongation and good chemical resistance. Consult Visuron Technologies for guidance. Applications can normally be reopened to pedestrian traffic in less than one hour. More demanding use should be allowed to cure for at least four to eight hours.

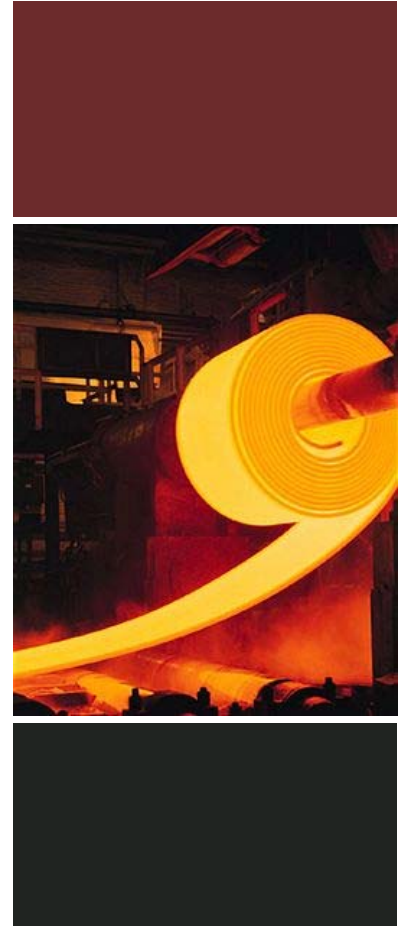
Polyarmor® 444-382 is well suited as an abrasion lining material. It is suitable over metal and concrete. It is very fast curing and permits extremely short down times with virtually no VOC's and extremely low odor.

- ◆ High Abrasion Resistance
- ◆ Low Coefficient of Friction
- ◆ Good Chemical Resistance
- ◆ 100% Solids, no VOC'S
- ◆ 450% Elongation
- ◆ Excellent Thermal Stability
- ◆ Shock Resistant
- ◆ Low Perm Rate
- ◆ Cures -20° F to 300° F
- ◆ Return to Service in 60 Minutes
- ◆ Very High Strength
- ◆ Bridges Gaps up to 1/16 Wide
- ◆ Waterproofs if Desired

Typical Uses

All applications where fast-setting lining with good performance characteristics are required.

- ◆ Chemical Plants—Secondary Containment
- ◆ Coat Fired Power Plants
 - Coal Chute Lining
 - All Areas Where Corrosion and Wear is a Problem
- ◆ Mining—All Types
- ◆ Coal Preparation Plants
- ◆ Aggregate Processing
- ◆ Pulp & Paper—Timber & Slurry
- ◆ Steel Mills
- ◆ Scrap Handling Equipment



COLOR AVAILABILITY: black, light gray, dark gray & beige



PolyArmor® 444-382

FAST SET / HEAVY DUTY PURE POLYUREA COATING

▶ Typical Application Properties

POLYARMOR® 444-382 is a plural-component, fast cure, pure polyurea spray. 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: 8-10 sec.
 - ◆ Tack-free time: 25-30 sec.
 - ◆ Open to traffic: 60 min.
 - ◆ Open to more demanding exposure: 4-8 hr.
- Bond Strength (ASTM D-4541)
- ◆ Steel: exceed 1400 psi (expanded metal)
 - ◆ Concrete: 400-600 psi (primed substrate) (normally concrete failure)

▶ Typical Physical Properties

Cured Sealant Properties	Test Method	Typical Value
Shore Hardness (“D” Scale)	D-2240	50
Tensile Strength (psi)	D-638	2850
Elongation (%)	D-638	450
Tear Strength (pli)	D-624	525
Moisture Vapor Transmission	E-96	(perm. In.) 0.025
Abrasion Resistance (wt. Loss-mg.) 1000 g, 1000 rev. H-18	D-4060	170
Flash Point, Components (° F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4×10^{-5}
Gel Time/Tack Free		8-10 seconds / 25-30 seconds
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	Pass

▶ Installation/Surface Preparation

Steel — Coating to .060 inch max. 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. All welds must be ground smooth. Immersion service requires a primer. Consult Visuron Technologies.

Steel — Coating greater than .060 inch max. Any weak or damaged coatings must be removed. Expanded, flattened metal must be wire welded in place as mechanical anchor. Mandatory to consult Visuron Technologies for requirements.

Abrasive installations commonly require substantial coating thickness. Can be in excess of 1/4 inch thick. Consult Visuron Technologies Technical Service for advice.

PolyArmor® 444-382

FAST SET / HEAVY DUTY PURE POLYUREA COATING

Installation/Surface Preparation

Concrete — Do not apply in wet conditions. Concrete must be structurally sound, free of large 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 plan decks or sandwich slab membranes. Maintain all expansion joints. Abrasive blast or etch to remove surface laitance. Emulsifying soaked in contaminants may be required. High degree of cleanliness is necessary. Surface must be dry and sound. Primer must be used. Consult Visuron Technologies.

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 large bug holes.

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.

PolyArmor® 475-375

AROMATIC PLURAL COMPONENT SPRAYABLE POLYUREA

Product Data

Polyarmor 475-375® is a highly cross-linked plural component polyurea system that is to be applied in industrial applications only by trained and experienced applicators using specialized proportioning and dispensing equipment. It is very resistant to attack from hydrocarbons such as gasoline and jet fuel. It is aromatic in nature and may change surface color under the influence of prolonged UV exposure. Polyarmor 475-375® has excellent high temperature properties. It will withstand temperatures of 400 ° F or greater in dry applications and non-aggressive atmospheres.

- ◆ Ideal for vertical, overhead and horizontal
- ◆ No solvents, 100 % solids, "0" VOC, low odor
- ◆ Good chemical resistance
- ◆ Excellent gloss retention
- ◆ Use over wood, concrete and metal
- ◆ Extremely moisture insensitive
- ◆ Outstanding abrasion and impact resistance
- ◆ Tough, flexible, elastomeric polymer



Typical Uses

- ◆ Floors, Walls and Ceilings (Warehouse * Manufacturing * Shop)
- ◆ Structural Steel (Bridges * Tanks * Pipe lining)
- ◆ Industrial Plants (Chemical * Petroleum * Wastewater * Power Pulp & Paper * Manufacturing * Food & Beverage * Agricultural)
- ◆ Marine (Ship Hulls * Docks * Decking * Offshore Platforms * Superstructures * Barges)
- ◆ Transportation (Railcar interiors * Truck box lining * Buses * Aircraft)
- ◆ Waste Water Treatment (Clarifiers * Piping * Tanks * Sweep Arms)

Typical Application Properties

Mix ratio:1 to 1 by volume

Application method: Plural component proportioning spray

WARNING: Spraying by any method produces fugitive mist vapors and fumes. Extreme care must be exercised to protect personnel from exposure. Air exhausting equipment (fans / ducting) must be used to dissipate the fumes appropriately. Confined spaces require extra measures for safety. Isolation of the spray area may be necessary.

- ◆ Solids (volume). No solvents. 100% theoretical.
- ◆ Theoretical coverage:1604 mil sq. ft. / gal.
26 sq. ft. / gal.(60 mil film)

Curing schedule: @ 60 mils thickness(72 ° F / 50 % R. H.)

- ◆ Dry to touch:1-2 min.
- ◆ Tack-free and firm: 5 min.
- ◆ Through: 2 hours
- ◆ Full physicals: 24 hours



PolyArmor® 475-375

AROMATIC PLURAL COMPONENT SPRAYABLE POLYUREA

▶ Typical Application Properties

To Recoat:

- ◆ Minimum: 1-2 min.
- ◆ Maximum: 2 hours w/o prep.; indefinite with prep.

Note: If no prep. recoat time is exceeded, abrade surface and chemically activate. Cure time is relatively temperature and humidity independent.

- ◆ Pot life: Not applicable
- ◆ Shelf life: 6 months unopened @ 73° F
- ◆ Cleanup: Visuron CS-100 cleaning solvent, ketones, xylene.

COLOR AVAILABILITY: light gray, medium gray, charcoal, black & beige



▶ Typical Physical Properties

	ASTM Method	Value 7 Days
Elongation, %	D-638	200
Tensile, psi	D-638	4100
Tear, notched, pli	D-638	1440
Hardness	D-624	58

▶ Installation/Surface Preparation

All surfaces must be clean, dry and free of all contamination prior to coating. Performance is, in general, proportional to the degree of surface preparation. Always consult Visuron Technical Assistance for guidance.

- ◆ Carbon Steel: SSPC SP-10. Appropriate Visuron primer should be considered. Correct primer usage will extend life and increase corrosion resistance.
- ◆ Other metals:
 - Aluminum: Use primer such as Alumiprep® after cleaning and light abrasive blast.
 - Galvanized: Use primer such as Galvaprep® after cleaning and light abrasive blast.
- ◆ Plastics: Fiberglass, gelcoat and other surfaces need to be abraded. Chemically activate if necessary. Perform test patch to verify adhesion.
- ◆ Concrete / Masonry: Remove all laitance, form release and curing coating by abrasive or shot blast. Use POLYARMOR® PRONTO PRIMETM or PRO PRIMETM prior to coating. Perform patch test over existing coating to verify adhesion.
- ◆ Wood: May be applied directly over wood if no grain lift is observed. Normally, the coating thickness will be sufficient to level out any grain lift that may occur. Perform patch test before proceeding with full job.

▶ Shelf Life & Storage

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

PolyArmor® 490-572

HIGH ELONGATION POLYUREA

Product Data

Polyarmor® 490-572 high elongation polyurea has excellent physical properties, 100% solids, is chemical resistant, abrasion resistant, tough, two part spray coating giving rapid and consistent cure in applications ranging from -20° F to over 300 ° F. "490-572" is specifically designed to be used in demanding installations requiring a flexible coating with very high elongation and moderate chemical resistance. Consult 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® 490-572 is well suited as a concrete sealing material. It is a good sealant for metal roofing. It is very fast cure and permits extremely short down times with no VOC's and extremely low odor.

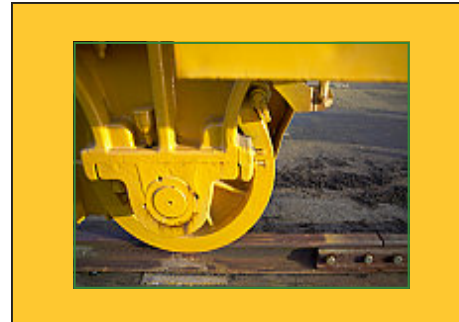
- ◆ Good chemical resistance
- ◆ 100% solids, no VOC's
- ◆ 800 % elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Abrasion resistant
- ◆ Low perm rate
- ◆ Cures -20° F to 300° F
- ◆ Return to service in 60 min.
- ◆ High strength
- ◆ Bridges gaps up to 1/16 inch wide



Typical Uses

All applications where flexible monolithic membrane is required.

- ◆ Concrete sealer
- ◆ Secondary Containment Areas
- ◆ Tank Linings
- ◆ Waster Water Linings
- ◆ Digester Linings
- ◆ Mechanical Rooms
- ◆ Pulp & Paper Mills
- ◆ Fertilizer Plants



Typical Application Properties

POLYARMOR® 490-572 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: 8-9 sec.
- ◆ Tack-free time: 30 sec.
- ◆ Open to traffic: 60 min.
- ◆ Open to more demanding exposure: 8 hr.
- ◆ Bond Strength (ASTM D-4541) (primed substrate)
- ◆ Concrete: 500-700 psi (concrete failure)
- ◆ Steel: exceed 1400 psi
- ◆ Wood: 200-250 psi (wood failure)

COLOR AVAILABILITY: black, light gray, dark gray and beige

"Custom colors available at additional charge"



PolyArmor® 490-572

HIGH ELONGATION POLYUREA

► Typical Physical Properties

Typical Physical Properties	Test Method	Value
Tensile Strength (psi)	D-638	1800
Elongation (%)	D-638	800
Tear Strength (pli)	D-624	325
Shore Hardness ("A" scale)	D-2240	80-85
Moisture Vapor Transmission	E-96	(perm. In.) 0.025
Abrasion Resistance (wt. Loss-mg.) H-18, 1000g, 1000 rev.	D-6040	280
Flash Point, components (°F)		>200
Coefficient of Thermal Expansion (in/in/oC)		approx. 4×10^{-5}
Gel Time / Tack Free		8-9 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	Pass

► Installation/Surface Preparation

Concrete — Do not apply in wet conditions. Concrete must be structurally sound, free of large 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 etch 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.

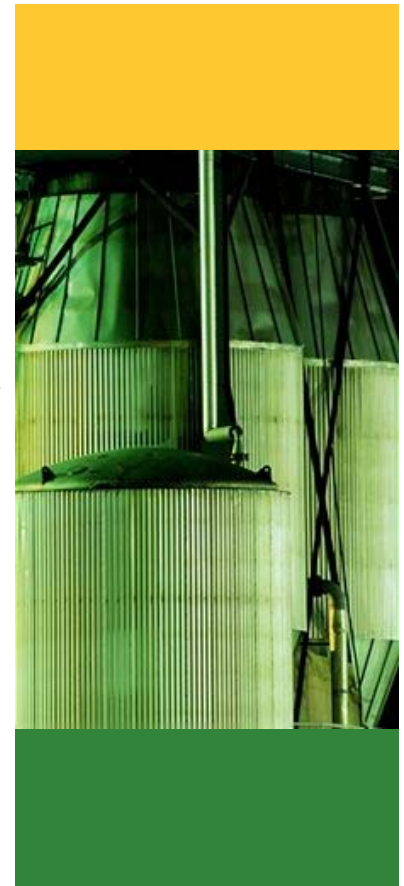
Substrate Repairs — All spalls and delaminations must be rehabilitated per ICRI and ACI standards. Rout and seal all cracks over 1/16" with appropriate joint sealants. Pre-fill all large bug holes.

Steel General — 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.

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. Consult Visuron Technologies.

► Shelf Life & Storage

Six months in sealed unopened containers. Keep away from extreme heat, freezing and moisture.



PolyArmor® 490-572

HIGH ELONGATION POLYUREA

▶ **CASE STUDY 1: Metal Roof Restoration**

PROJECT: Restore Badly Leaking Corrugated Metal Roof

OWNER: Pepsi Cola Co., Grand Rapids, Michigan

INSTALLER: ReNew Roof Co.

SYSTEM: POLYARMOR® 490-572

COLOR: Charcoal

AREA: 54,000 sq. ft.



Preparation and Coating

- ◆ Power washed - 3000 psi.
- ◆ Wirewheel brushed all areas to be coated - removed all loose rust.
- ◆ Tightened all loose screws.
- ◆ Acid etched all areas to be coated.
- ◆ Applied proprietary galv. primer.
- ◆ Sealed all horizontal and vertical lap joints, all screw heads and all protrusions with POLYARMOR® 490-572 plural under private brand.
- ◆ Overcoated all areas with aluminized asphaltic paint

DISCUSSION: This corrugated metal style roof was over ten years old at the time of restoration by ReNew. There were over sixty-five separate leaks by count prior to re-sealing. When done, there was one very small drip that was easily repaired. Over two million sq. ft. of metal roof has been restored by ReNew since 1992 using POLYARMOR coatings exclusively. (covered by U. S. Patent 5,392,583)



PolyArmor® 1010-PW

FAST CURE SPRAYABLE COATING / LINING

Product Data

POLYARMOR® 1010 PW is state of the art *polyurea* elastomer designed as a monolithic, seamless, waterproof liner for drinking water and where there is direct contact with food products. During final evaluation, POLYARMOR 1010 PW is for use with tanks of greater than 1000 gallon capacity and pipes of greater than 48 inch diameter.

POLYARMOR® 1010 PW is the first choice where a tough, unique, sprayed flexible liner is required. 525% elongation permits bridging moving cracks of up to 1/8th inch diameter. POLYARMOR 1010 PW is a very abrasion resistant coating, requires only extremely short down times, contains no VOC's and has extremely low odor.

The fast cure permits the coated area to be returned to service promptly. The fast cure allows the system to be applied in thicknesses of 10 mils up to 250 mils, or greater in one application.

- ◆ ANSI/NSF 61 Approved
- ◆ USDA Approved
- ◆ 100% solids, no VOC's
- ◆ Flexible, 525 % elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Abrasion resistant
- ◆ Low perm rate
- ◆ Cures -20°F to +350°F
- ◆ Return to service in 60 min.
- ◆ High strength
- ◆ Bridges moving gaps up to 1/8 inch wide
- ◆ Waterproofs
- ◆ Bonds to Concrete, Steel or Wood.

ANSI/NSF 61 APPROVED

Typical Uses

All applications where monolithic waterproof, potable water approved membrane is required.

- ◆ Potable Water Containment
- ◆ Tank Linings
- ◆ Waste Water Linings
- ◆ Food Product Containment Lining
- ◆ Railcar Lining for Food Products
- ◆ Pipe Line Coating

Typical Application Properties

POLYARMOR 1010 PW 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 Technologies for correct machine conditions.

- ◆ Gel time 12 sec.
- ◆ Tack-free time 60 sec.
- ◆ Open to water 60 min.
- ◆ Open to alternative exposure 4 hr.
- Bond Strength** (ASTM D-4541)
(primed substrate)
 - ◆ Concrete: 550 psi (concrete failure)
 - ◆ Steel: exceed 1600 psi
 - ◆ Wood: 200-250 psi (wood failure)

COLOR AVAILABILITY: light gray, dark gray, charcoal & beige



PolyArmor® 1010-PW

FAST CURE SPRAYABLE COATING / LINING

Typical Physical Properties

Typical Physical Properties	Test Method	Value
Tensile Strength (psi)	D-638	3650
Elongation (%)	D-638	525
Tear Strength (pli)	D-624	920
Shore Hardness ("D" scale)	D-2240	50
Moisture Vapor Transmission	E-96	(perm. In.) 0.020
Abrasion Resistance (wt. Loss-mg.) H-18, 1000g, 1000 rev. CS-17, 1000g, 1000 rev.	D-6040 D-6040	112 < 6
Flash Point, components (°F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4×10^{-5}
Gel Time / Tack Free		12 sec. / 60 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
Mandrel Bend: Conical Bend (on 1/32" steel) 1/4 Mandrel, 25°C (free film, 35-50 mils) 1/4 Mandrel, -20°C (free film, 35-50 mils)	D-522 D-1737 D-1737	Pass Pass Pass

Installation/Surface Prep

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. All substrate repair materials must conform to ANSI/NSF 61.

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, 2 1/2 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 shot blasting and sand-blasting are preferred. Any weak or damaged existing coatings must be removed. Sound existing coatings can possibly be overcoated with following: Abrade 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.

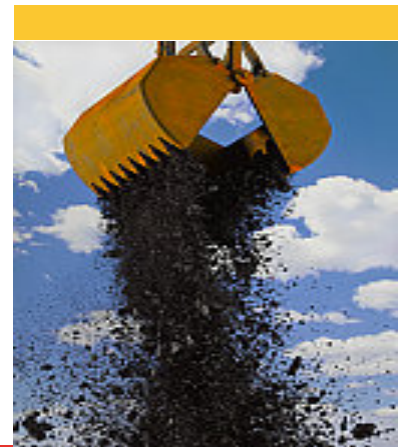
PolyArmor® ABR-330

ABRASION RESISTANT HEAVY DUTY / SEVERE SERVICE
EXTREMELY LOW FRICTION

Product Data

Polyarmor® ABR-330 is a highly modified polyurea copolymer. It has excellent physical properties, 100% solids, superb abrasion resistance, high-slip, good chemical resistance, tough, two part spray coating giving rapid and consistent cure in applications ranging from – 20 °F to over 300 °F. “ABR-330” is specifically designed to be used in demanding abrasive installations requiring a flexible coating with good elongation and moderate chemical resistance. Consult 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.

- ◆ High abrasion resistance
- ◆ Low coefficient of friction
- ◆ Good chemical resistance
- ◆ 100% solids, no VOC's
- ◆ 330 % elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Low perm rate
- ◆ Low perm rate
- ◆ Cures –20oF to 300oF
- ◆ Return to service in 60 min.
- ◆ Very high strength
- ◆ Bridges gaps up to
- ◆ 1/16 inch wide
- ◆ Waterproofs if desired



Typical Uses

All applications where extremely abrasive conditions are present

- ◆ Coal Fired Power Plants
 - Coal chute lining
 - All areas where abrasion is a problem
- ◆ Mining—All types
- ◆ Coal preparation plants
- ◆ Aggregate processing
- ◆ Pulp & paper—timber & slurry
- ◆ Steel mills
- ◆ Aluminum smelters
- ◆ Copper smelters
- ◆ Scrap handling equipment

“ABR-330” is well suited as an abrasion lining material. It is suitable over metal and concrete. It is very fast cure and permits extremely short down times with virtually no VOC's and extremely low odor.

Typical Application Properties

POLYARMOR® ABR-330 is a plural-component, fast cure, highly modified polyurea copolymer spray. Equal volumes of parts “A” and “B” are proportioned and dispensed through high pressure, high temperature spray equipment. Consult Visuron for correct machine conditions.

Bond Strength (ASTM D-4541)

- ◆ Gel time: 7 sec.
- ◆ Tack-free time: 45 sec.
- ◆ Open to traffic: 60 min.
- ◆ Open to more demanding exposure: 8 hr.
- ◆ Steel: exceed 1400 psi (expanded metal)
- ◆ Concrete: 400-600 psi (primed substrate (normally concrete failure))

PolyArmor® ABR-330

ABRASION RESISTANT HEAVY DUTY / SEVERE SERVICE
EXTREMELY LOW FRICTION

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	5300
Elongation (%)	D-638	330
Tear Strength (pli)	D-624	525
Shore Hardness ("A" scale)	D-2240	50
Moisture Vapor Transmission	E-96	(perm. In.) 0.015
Abrasion Resistance (wt. Loss-mg.) H-18, 1000g, 1000 rev.	D-6040	14
Flash Point, components (°F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4×10^{-5}
Gel Time / Tack Free		7 sec. / 45 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	Pass

Installation/Surface Preparation

Steel — Coating to **.060 inch thick max.** 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 . All welds must be ground smooth. Immersion service requires a primer. Consult Visuron Technologies.

Steel — Coating **greater than .060 inch thick max.** Any weak or damaged existing coatings must be removed. Expanded, flattened metal must be wire welded in

Abrasive installations commonly require substantial coating thickness. Can be in excess of 1/2 inch thick. Consult Visuron Technologies Technical Service for advice.

Concrete — Do not apply in wet conditions. Concrete must be structurally sound, free of large 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 un-vented steel pan decks or sandwich slab membranes. Maintain all expansion joints. Abrasive blast or etch to remove surface laitance. Emulsifying soaked in contaminants may be required. High degree of cleanliness is necessary. Surface must be dry and sound. Primer must be used. Consult Visuron Technologies.

PolyArmor® *ABR-330*

ABRASION RESISTANT HEAVY DUTY / SEVERE SERVICE
EXTREMELY LOW FRICTION

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.



PolyArmor® CFP-68

HIGHWAY MARKING / ULTRA FAST CURE / SEVERE SERVICE
ALIPHATIC PLURAL COMPONENT SPRAYABLE POLYUREA

Product Data

Polyarmor® CFP-68 is a highly cross-linked plural component polyurea system that is to be applied in highway marking applications only by trained and experienced applicators using specialized proportioning and dispensing equipment. It is very resistant to attack from hydrocarbons such as gasoline. It is aliphatic in nature and is extremely color stable under the influence of prolonged UV exposure.

Polyarmor® CFP-68 has excellent high temperature properties. It will withstand temperatures of 250 °F or greater in dry applications and non-aggressive atmospheres.

- ◆ Ideal for hot weather application (>90 °F)
- ◆ Usable in cold weather (down to 35 °F)
- ◆ No solvents, 100 % solids, "0" VOC, low odor
- ◆ Good chemical resistance
- ◆ Excellent gloss retention
- ◆ Excellent glass bead retention
- ◆ Extremely moisture insensitive
- ◆ Outstanding abrasion and impact resistance
- ◆ Tough, flexible, elastomeric polymer
- ◆ Very fast turn-around



Typical Uses

Especially Designed For The Following Highway Marking Uses:

- | <i>Long Lines</i> | <i>Special Markings</i> |
|-------------------|-------------------------|
| ◆ Center lines | ◆ Cross walks |
| ◆ Edge lines | ◆ Stop Bars |
| | ◆ Letterings |
| | ◆ Arrows |
| | ◆ Characters |



Typical Application Properties

Mix ratio: 1 to 1 by volume

Application methods: Plural component proportioning spray

WARNING: Spraying by any method produces fugitive mist, vapors and fumes. Extreme care must be exercised to protect personnel from exposure. Air exhausting equipment (fans / ducting) must be used to dissipate the fumes appropriately. Confined spaces require extra measures for safety. Isolation of the spray area may be necessary.

- ◆ Solids (volume). No solvents. 100% theoretical.
 - ◆ Theoretical coverage: 1604 mil sq. ft. / gal.
80 sq. ft. / gal.(20 mil film)
- Curing schedule: @ 20 mils thickness(72°F / 50 % R. H.)

- ◆ Dry to touch: 1 min.
- ◆ Tack-free and firm: 1-2 min.
- ◆ Through: 1 hour
- ◆ Full physicals: 24 hours

- ◆ To Recoat:
Minimum: 1-2 min.
Maximum: 2 hours w/o prep.; indefinite with prep.

Note:

- ◆ If no prep. recoat time is exceeded, abrade surface and chemically activate. Cure time is relatively temperature and humidity independent.
- ◆ Pot life: Not applicable
- ◆ Shelf life: 6 months unopened @ 73°F
- ◆ Cleanup: VTI CS-100 cleaning solvent, ketones, xylene.

PolyArmor® CFP-68

HIGHWAY MARKING / ULTRA FAST CURE / SEVERE SERVICE
ALIPHATIC PLURAL COMPONENT SPRAYABLE POLYUREA

COLOR AVAILABILITY: white & yellow



Typical Physical Properties

	ASTM Method	Value 7 Days
Elongation, %	D-638	300
Tensile, psi	D-638	3500
Tear, notched, pli	D-624	720
Hardness	Shore "D"	58

Installation/Surface Preparation

All surfaces must be clean, dry and free of all contamination prior to coating. Performance is, in general, proportional to the degree of surface preparation. Always consult Visuron Technical Assistance for guidance.

- ⇒ **Asphalt:** Remove all dirt and debris. Grinding may be necessary to remove existing coating or tape. Surface must be totally clean and dry prior to coating. Old asphalt may need to be primed. Each site needs to be evaluated for appropriate procedure.
- ⇒ **Concrete / Masonry:** Remove all laitance, form release and curing coating by abrasive or shot blast. Use POLYARMOR® PRONTO PRIMETM or PRO PRIMETM prior to coating. Perform patch test over existing coating to verify adhesion.
- ⇒ **Re-coat Over Polyurea:** Existing polyurea coating must be thoroughly cleaned. The surface needs to be receptive to new polyurea coating. This may require either scuffing or chemical reactivation, or both. Each site needs to be evaluated for appropriate procedure

Shelf Life

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.

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)



PolyArmor® Hi-Mod™ 375

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

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 ⁻⁵
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.

PolyArmor® *Hi-Mod™ 375*

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

▶ 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.

PolyArmor® *Hi-Slip 850-52-2*

HEAVY DUTY / SEVERE SERVICE / EXTREMELY LOW FRICTION

▶ Product Data

Polyarmor® Hi-Slip 850-52-2 is a highly crosslinked plural component polyurea system that is to be applied in industrial applications only by trained and experienced applicators using specialized proportioning and dispensing equipment. It is very slippery. It sheds sticky products such as clay, mud, asphalt, ice, frozen coal and other frozen types of products. It is very resistant to attack from hydrocarbons such as gasoline and jet fuel. It has excellent high temperature properties. It will withstand temperatures of 400 ° F in dry applications and non-aggressive atmospheres.

- ◆ NON-STICK SURFACE / VERY SLIPPERY
- ◆ Ideal for vertical, overhead and horizontal
- ◆ No solvents, 100 % solids, "0" VOC, low odor
- ◆ Good chemical resistance
- ◆ Excellent gloss retention
- ◆ Use over wood, concrete and metal
- ◆ Extremely moisture insensitive
- ◆ Outstanding abrasion and impact resistance
- ◆ Tough, flexible, elastomeric polymer

▶ Typical Uses / Very Slippery

Primary & Secondary Containment

- ◆ Floors, Walls and Ceilings
Warehouse * Manufacturing * Shop
- ◆ Structural Steel
Bridges * Tanks * Pipe lining
- ◆ Industrial Plants
Chemical * Petroleum * Wastewater * Power Pulp & Paper * Manufacturing * Food & Beverage * Agricultural
- ◆ Marine
Ship Hulls * Docks * Decking * Offshore Platforms * Superstructures * Barges
- ◆ Transportation
Railcar interiors (frozen coal, sticky latex, etc.) * Truck boxes (asphalt, frozen sand, salt, etc.)
- ◆ Waste Water Treatment
Clarifiers * Piping * Tanks * Sweep Arms

▶ Typical Application Properties

Mix ratio:1 to 1 by volume

Application method: Plural component proportioning spray

WARNING: Spraying by any method produces fugitive mist vapors and fumes. Extreme care must be exercised to protect personnel from exposure. Air exhausting equipment (fans / ducting) must be used to dissipate the fumes appropriately. Confined spaces require extra measures for safety. Isolation of the spray area may be necessary.

- ◆ Solids (volume). No solvents. 100% theoretical.
- ◆ Theoretical coverage:1604 mil sq. ft. / gal.
26 sq. ft. / gal.(60 mil film)



PolyArmor® *Hi-Slip 850-52-2*

HEAVY DUTY / SEVERE SERVICE / EXTREMELY LOW FRICTION

Typical Application Properties

Curing schedule: @ 60 mils thickness(72° F / 50 % R. H.)

- ◆ Dry to touch:1-2 min.
- ◆ Tack-free and firm:5 min.
- ◆ Through:2 hours
- ◆ Full physicals:24 hours
- ◆ To Recoat:
Minimum:1-2 min.
Maximum: 1 hour w/o prep.; indefinite with prep.

Note: If no prep. recoat time is exceeded, abrade surface and chemically activate. Cure time is relatively temperature and humidity independent.

- ◆ Pot life: Not applicable
- ◆ Shelf life: 6 months unopened @ 73° F
- ◆ Cleanup: Visuron CS-100 cleaning solvent, ketones, xylene.



COLOR AVAILABILITY: light gray, medium gray, charcoal, black & beige



Typical Physical Properties

	ASTM Method	Value 7 Days
Elongation, %	D-638	270
Tensile, psi	D-638	4530
Tear, notched, pli	D-624	1310
Hardness	Shore "D"	54



Installation/Surface Preparation

All surfaces must be clean, dry and free of all contamination prior to coating. Performance is, in general, proportional to the degree of surface preparation. Always consult Visuron Technical Assistance for guidance.

⇒ Carbon Steel: SSPC SP-10. Appropriate Visuron primer should be considered. Correct primer usage will extend life and increase corrosion resistance.

⇒ Other metals:

Aluminum: Use primer such as Alum prep® after cleaning and light abrasive blast.

Galvanized: Use primer such as Galva prep® after cleaning and light abrasive blast.

⇒ Plastics: Fiberglass, gel coat and other surfaces need to be abraded. Chemically activate if necessary. Perform test patch to verify adhesion.

⇒ Concrete / Masonry: Remove all laitance, form release and curing coating by abrasive or shot blast. Use POLYARMOR® PRONTO PRIMETM or PRO PRIMETM prior to coating. Perform patch test over existing coating to verify adhesion.

⇒ Wood: May be applied directly over wood if no grain lift is observed. Normally, the coating thickness will be sufficient to level out any grain lift that may occur. Perform patch test before proceeding with full job.

PolyArmor® *Hi-Slip 850-52-2*

HEAVY DUTY / SEVERE SERVICE / EXTREMELY LOW FRICTION

Shelf Life

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.

PolyArmor® Warrior™ 240

FAST CURE SPRAY ELASTOMER SYSTEM (patent pending)

Product Data

Polyarmor® WARRIOR™ 240 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 240" 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™ 240 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.

- ◆ Superior resistance to solvents, acids and bases
- ◆ 100% solids, no VOC's
- ◆ Flexible, 240% elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Waterproofs
- ◆ Accepts vehicular traffic
- ◆ Abrasion resistant
- ◆ Low perm rate
- ◆ Cures -20° F to 400° F
- ◆ Return to service in 60 min.
- ◆ High strength
- ◆ Bridges moving gaps up to 1/16 inch wide

Typical Uses

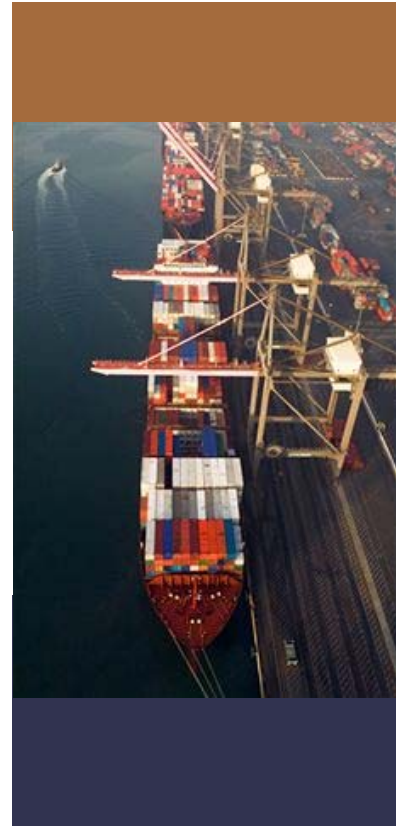
All applications where monolithic chemical resistant membrane is required.

- ◆ 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

Typical Application Properties

WARRIOR™ 240 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)



PolyArmor® Warrior™ 240

FAST CURE SPRAY ELASTOMER SYSTEM *(patent pending)*

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	5180
Elongation (%)	D-638	240
Tear Strength (pli)	D-624	1395
Shore Hardness ("D" scale)	D-2240	62
Moisture Vapor Transmission	E-96	(perm. In.) 0.019
Abrasion Resistance (wt. Loss-mg.)		
H-18, 1000g, 1000 rev.	D-6040	58
CS-17, 1000g, 1000 rev.	D-6040	< 3
Flash Point, components (°F)		>200
Coefficient of Thermal Expansion (in/in/°C)		approx. 4 x 10 ⁻⁵
Gel Time / Tack Free		6 sec. / 30 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™ 240

FAST CURE SPRAY ELASTOMER SYSTEM *(patent pending)*

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.

Chemical Resistance/Ratings

It will quickly become obvious to those interested that the chemical resistance of Warrior™ 240 far exceeds the chemical resistance of any other polyurea available. The exceptionally high performance of Warrior™ 240 in a wide range harsh chemical environments is due to the unique combination of very unusual components, coupled with advanced polymerization technology and a high level of quality assurance.

Information on Chemical Resistance Properties

The chemical resistance property test data shown in this chart is meant to serve as a general guide only. Actual use conditions will vary and may cause different behavior of the coating. Accordingly, no guarantee is made nor can the manufacturer of these coatings assume liability in connection with their use.

The test chemicals in this chart are those commonly found in industry. This list is not all inclusive. Warrior™ 240 is resistant to many additional chemicals. For further information the manufacturer should be consulted.

There are several specific conditions that are essential to know regarding the actual use of Warrior™ 240 before an accurate decision can be made as to whether the product is suitable for use.

1. Commercial name of each reagent used in the installation under consideration.
2. Concentration of each reagent.
3. Temperature of the reagent (reagent blend) as it contacts the coating.
4. Anticipated frequency and conditions of spillage.
5. Maximum elapsed time from spill to completion of cleanup.
6. Any other pertinent conditions that may influence performance of the coating.

It is well known that chemical combinations often result in a synergy that may cause the combination to behave with properties beyond those of single reagents listed. Elevated temperature also activates most reagents and causes them to behave much more actively and aggressively than they do at ambient temperatures.

Visuron Technologies, Inc. strongly recommends that tests of Warrior™ 240 are carried out under actual job conditions whenever there is any question regarding suitability. Consult with the manufacturer where necessary.

Test Procedure

**7 day immersion per ASTM D-1308 @ 72° F (25° C)
(Method no. 3—immersion)**

The seven day immersion version is the most severe of the three methods available under ASTM D-1308. Fifty ml. of the test chemical was placed in 100 mil. Glass beakers. Carefully sized test specimens of both Warrior™ 240 and a high quality standard polyurea (Polyarmor 444-370) were prepared and placed together into the chemical. The entire setup was then covered and sealed inside a glass container, thereby, controlling evaporation. The coating samples were monitored constantly during the prescribed time period. Semi-daily removal, observation and study of each sample was carried out. Coating condition scoring was carried out based on a scale of 1-5.

PolyArmor® Warrior™ 240

FAST CURE SPRAY ELASTOMER SYSTEM (patent pending)

Chemical Resistance/Ratings

- 5: No change. No softening or embrittling of coating, no swelling, no coating deterioration.
- 4: Slight softening or swelling, some change in natural shape, good physical properties maintained.
- 3: Increase softening or swelling, decrease of physical properties, not able to tear coating manually
- 2: Continued deterioration, swelling, softening, able to tear manually, but still maintained film shape.
- 1: Destroyed. Soggy or embrittled, Total loss of shape.



CHEMICAL RESISTANCE COMPARISON

Polyarmor® WARRIOR™ 240 vs Typical Polyurea

7 day exposure per ASTM D-1308—immersion @ 25° C

(Warrior Series Polyurea—Patent Pending)

“WARRIOR™ 260” IS UP TO TWENTY-FOUR TIMES MORE RESISTANT TO CHEMICAL ATTACK THAN TYPICAL POLYUREA

This Chart compares the suitability of Polyarmor® WARRIOR™ 240 with typical polyurea for use in secondary containment applications

LEGEND

R: Recommended (no damage)

R-8: Recommended with 8 hour wash down

C: Caution (some swelling, discoloration and cracking)

R-1: Recommended with 1 hour wash down.

N: Not Recommended

Test Media (CHEMICAL)	Warrior 240	Typical Polyurea
Acetic Acid, 10%	R	R
Acetone	R-8	N
Ammonium Hydroxide, 20%	R	R
Ammonium Nitrate	R	R
Ammonium Phosphate	R	R
Antifreeze (50% Ethylene Glycol)	R	N
Battery Acid Sulfuric Acid)	R	N
Benzene	R-8	N
Brine (saturated, 130,000 ppm)	R	R
Brake Fluid	R-1	N
Chlorine (2,000 ppm in water)	R	R
Citric Acid	R	R
Copper Chromate Arsenic (4% working solution)	R	R

Test Media (CHEMICAL)	Warrior 240	Typical Polyurea
Diesel Fuel	R	R
Dimethyl Formamide	R-1	N
Gasoline (unleaded)	R	C
Hexane	R	R
Hydrochloric Acid, 5%, 10%	R	R
Hydrochloric Acid, 25%	R	N
Hydrofluoric Acid	N	N
Hydraulic Oil	R	C
Isopropyl Alcohol	R	C
Lactic Acid	R	R
Liquid Nitrogen Fertilizer (28-0-0)	R	R
Liquid Urea Fertilizer	R	R
Methanol	R	C

PolyArmor® Warrior™ 240

FAST CURE SPRAY ELASTOMER SYSTEM (patent pending)

Chemical Resistance/Ratings

CHEMICAL RESISTANCE COMPARISON

Polyarmor® WARRIOR™ 240 vs Typical Polyurea

7 day exposure per ASTM D-1308—immersion @ 25° C

(Warrior Series Polyurea—Patent Pending)

This Chart compares the suitability of Polyarmor® WARRIOR™ 240 with typical polyurea for use in secondary containment applications

LEGEND

R: Recommended (no damage)

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C: Caution (some swelling, discoloration and cracking)

R-1: Recommended with 1 hour wash down.

N: Not Recommended

Test Media (CHEMICAL)	Warrior 240	Typical Polyurea
Methyl Ethyl Ketone	R-1	N
Mineral Spirits	R	R
Motor Oil	R	R
Nitric Acid, 10%, 20%	R	N
Nitric Acid, 40%	R-8	N
Nitric Acid, 50%	R-1	N
Phosphoric Acid, 10%	R	R
Phosphoric Acid, 25%, 50%, 85%	R	N
Potassium Hydroxide, 10%	R	R
Potassium Hydroxide, 20%, 50%	R	N
Propylene Carbonate	R	C
Skydrol (aircraft hydraulic oil)	R-1	N
Sodium Chloride	R	R

Test Media (CHEMICAL)	Warrior 240	Typical Polyurea
Sodium Hydroxide, 5%, 10%, 25%	R	R
Sodium Hydroxide, 50%	R	C
Sodium Hypochlorite (household bleach)	R	C
Stearic Acid	R	R
Sulfuric Acid, 5%, 10%, 20%	R	R
Sulfuric Acid, 25%, 50%	R	N
Sulfuric Acid, 98%	R-1	N
Toluene	R-8	C
1,1,1 Trichloroethane	R-8	C
Trisodium Phosphate	R	R
Vinegar (5% Acetic Acid)	R	R
Water	R	R
Xylene	R	R

Shelf Life

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.

PolyArmor® Warrior™ 240

FAST CURE SPRAY ELASTOMER SYSTEM *(patent pending)*

CASE STUDY 1: Warrior™

PROJECT: NISSAN Motor Manufacturing Corp, Canton, MS

PROJECT COORDINATOR: Malouf Construction Corporation
Mansfield Industrial, Kenny Industrial Services Company

POLYUREA APPLICATOR: Fast Set Coatings, Inc., Austin, Texas
Inspection / Project Monitoring by Primeaux Associates LLC

SYSTEM: WARRIOR™ 240, Visuron Technologies, Inc.
Chemical Containment Systems, Inc. / V-tac Group

AREA: Concrete Wastewater Tank / Pump Room, approx 7,000



DISCUSSION: NISSAN is building a new assembly plant in Canton, MS. Part of the plant required their own waste water treating facility. In order to protect the concrete CIP pits and pump room floor from this highly corrosive environment, WARRIOR™ 240 polyurea system was chosen over a conventional polyurea spray elastomer system. The prepared concrete surface was to first receive 8 to 10 mils of the ProntoPrime (2-part urethane) priming system followed by 80 mils of the WARRIOR™ 240 polyurea system.

The specification called for abrasive blasting of the Cast-In-Place concrete structure followed by a re-surfacer to fill opened bugholes. Unfortunately, a re-surfacing material had not been applied and the WARRIOR™ 240 system had to be installed at a much higher film thickness over the ProntoPrime priming system in order to complete filling of the minor bugholes. The narrow size of the 40 foot deep processing pits also presented a challenge for spray application. Scissor lifts were inserted into the larger of the pits while a Spider Lift was used for access in the smaller pits.



The WARRIOR™ 240 system was applied at an average film thickness of 100 to 120 mils. Within the same day of applying the WARRIOR 240 system, several large mechanical pieces of equipment were installed in the pits. This caused some damage to the applied coating, which was then easily treated and repaired using the WARRIOR 240™ spray system. The application was completed in a timely manner and will give excellent service and corrosion protection for the concrete. The pump room floor was installed with a stipple / non-slip texture.

PolyArmor® Warrior™ 260

FAST CURE SPRAY ELASTOMER SYSTEM

Product Data

Polyarmor® WARRIOR™ 260 is the next generation phenolic *sm*. 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 260" 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™ 260 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.

- ◆ Superior resistance to solvents, acids and bases
- ◆ 100% solids, no VOC's
- ◆ Flexible, 260% elongation
- ◆ Excellent thermal stability
- ◆ Shock resistant
- ◆ Waterproofs
- ◆ Accepts vehicular traffic
- ◆ Abrasion resistant
- ◆ Low perm rate
- ◆ Cures -20° F to 400° F
- ◆ Return to service in 60 min.
- ◆ High strength
- ◆ Bridges moving gaps up to 1/16 inch wide

Typical Uses

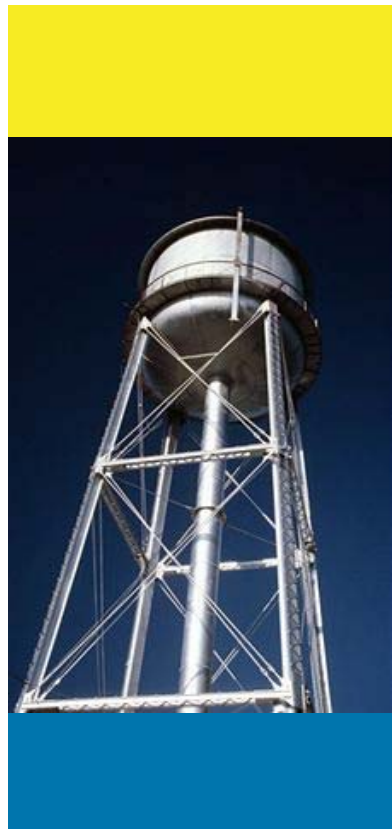
All applications where monolithic chemical resistant membrane is required.

- ◆ 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™ 260 is a plural-component, fast cure, spray phenolic co-polymer 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 1200 psi
 - ◆ Wood: 200-250 psi
(wood failure)



PolyArmor® Warrior™ 260

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	5350
Elongation (%)	D-638	260
Tear Strength (pli)	D-624	730
Shore Hardness ("D" scale)	D-2240	62
Moisture Vapor Transmission	E-96	(perm. in.) 0.015
Abrasion Resistance (wt. Loss-mg.)		
H-18, 1000g, 1000 rev.	D-6040	43
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 sec. / 30 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 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.

PolyArmor® Warrior™ 260

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.

WARRIOR™ 260 is a very high physical property phenolic co-polymer coating system which is tightly crosslinked. It is resistant to being degraded by a wide array of chemicals. It is also very abrasion resistant.

Plural component proportioner size, temperature and pressure ratings must be capable of producing the conditions stated below to satisfactorily spray install WARRIOR systems. Settings for correct installation of WARRIOR systems are higher than the settings used for typical polyurea. There are a few specific conditions that must be met for proper mixing and dispensing of this system.

It is mandatory to follow these recommendations so as to obtain the properties and performance that WARRIOR products are capable of delivering. Deviating from these conditions may decrease the physical properties of the cured polymer and, therefore, result in unacceptable performance of the installation.

Proportioner Conditions:

- ◆ Capacity minimum: 20 lbs. per minute
- ◆ Static pressure: 2800-3000 psi
- ◆ Spraying pressure: 2500 psi minimum
- ◆ Pressure balance: 100 psi variance desirable
300 psi variance maximum

Temperatures:

- ◆ Preheaters & Hose 170 °F each

Wye strainer screens:: 30 mesh



Spray Gun:

- ◆ GUSMER GX7-400:
 - Module: 17190-453 (4 port)
 - "A" drill @ .026 in.
 - "B" drill @ .0225 in.
 - P.C.D.: 17192-212 (small fan)
 - Screens: 40 mesh

Note: Throughput approx. 8 lbs./min.

Gusmar D.I. Spray Gun: Consult Visuron Technical Service
GRACO Proportioners and GRACO Fusion Gun: Consult Visuron Technical Service
Probler gun not currently approved - DO NOT USE (evaluations underway)



Note: Special attention must be paid to keep the P.C.D. slot clean. WARRIOR systems have very high early green strength. The slot may become obstructed unless cleaned frequently.

"B" Side Agitation: It is necessary to thoroughly agitate prior to use. There may be some settling of several of the raw materials. The recommended procedure is to mix with a collapsible blade through-bung mixer at an active rate for a minimum of 30 minutes. (Note: the "B" side drum pump recirculation kit is not adequate for WARRIOR 260).

PolyArmor® Warrior™ 260

FAST CURE SPRAY ELASTOMER SYSTEM

▶ **CASE STUDY 1: Phenolic Co-Polymer (patented)**

PROJECT: Waste Water Treatment Clarifier Lining

OWNER: Luprino Foods, Grand Rapids, MI

INSTALLER: RPS

SYSTEM: WARRIOR™ 260 - Phenolic co-polymer

COLOR: Light Gray

AREA: 22,000 sq. ft.



DISCUSSION: Badly eroded eight year old concrete walls and floor of primary clarifier in food processing plant were severely weakened and in danger of failure. The owner had tried epoxy lining which had failed in three years. It was decided to re-line with WARRIOR™ 260 which would stand up to the high concentration of calcium sulfate chemical used.



All surfaces were sand blasted cleaned, followed by sprayed primer coat of Pronto Prime concrete priming lacquer. Topcoat of .080 inch thick WARRIOR™ 260 was applied. Entire job was completed in 24 hours and re-watered in two hours.



▶ **CASE STUDY 2: Phenolic Co-Polymer (patented)**

PROJECT: Chemical Containment (PCB Specifically)

OWNER: AtoFina Chemical Co., Downriver, MI

INSTALLER: I. W. C.

SYSTEM: WARRIOR™ 260 - Phenolic co-polymer

COLOR: Charcoal

AREA: 90,000 sq. ft.



PolyArmor® *Warrior™* 260

FAST CURE SPRAY ELASTOMER SYSTEM

CASE STUDY 2: Phenolic Co-Polymer (*patented*)

This project consisted of twenty-nine individual containments at the owner's facility where amine products are produced. The containment areas averaged about 3,000 sq. ft. each. Their design was typically poured concrete containment walls with coarse gravel floors (as can be seen in photograph on previous page).

U. S. E. P. A. mandated that the dyked areas all had to be sealed to prohibit PCB migration which was determined to be a serious problem.

The concrete areas were all rehabilitated and sand blasted, followed by spray application of Pronto Prime priming lacquer. The floors were covered first with non-woven geotextile that was lapped 12 inches up the walls. A fully monolithic seal of WARRIOR 260 was spray applied over the geotextile and up the vertical concrete walls.

WARRIOR™ 260 coating was applied over the top of the concrete walls to insure full-depth sealed containment areas. WARRIOR™ 260 was used as an adhesive to connect the lapped areas of the geotextile on both the floor and up the concrete walls.

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.



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PRODUCT GUIDE

PRODUCT:	Tensile (psi) Test Method D-638	Tear (pli) Test Method D-624	Elongation (%) Test Method D-638	Hardness Test Method Shore "D" D-2240	Toughness	Gel Time	General Characteristics	Recommended Uses
Polyarmor® 444-370 Fast Set Spray Concrete/Steel	2750	430	425	45		12 sec	All purpose. Balanced physical properties moderate chemical resistance. Excellent self-leveling.	Bottling & Canning Facilities, Chemical Plants, Cold Storage Facilities, Fertilizer Plants, Food Processing Facilities, Industrial Facilities, Manufacturing Facilities, Marine Applications, Mining Operations, Oil & Gas Transmission, Petroleum Production & Storage, Pulp & Paper Mills, Refineries, Secondary Containment, Walkway & Parking Decks, Warehouse Floors
Polyarmor® 444-382 Fast Set / Heavy Duty Pure Polyurea Coating	2850	525	450	50		8-10 sec	Pure polyurea coating. Excellent physical properties. 100% solids, good abrasion resistance, good chemical resistance, very tough with good cut resistance two part spray coating.	Chemical Plants-Secondary Containment, Coat Fired Power Plants (Coal Chute Lining, All areas where corrosion and wear is a problem), Mining-All Types, Coal Preparation Plants, Aggregate Processing, Pulp & Paper-Timber & Slurry, Steel Mills, Scrap Handling Equipment
Polyarmor® 475-375 Aromatic Plural Component Sprayable Polyurea	4100	1440	200	58		8-9 sec	Highly cross-linked plural component polyurea system that is to be applied in industrial applications only by trained and experienced applicators using specialized proportioning and dispensing equipment. Very resistant to attack from hydrocarbons such as gasoline and jet fuel.	Floors, Walls & Ceilings (Warehouse, Manufacturing, Shop), Structural Steel (Bridges, Tanks, Pipe lining), Industrial Plants (Chemical, Petroleum, Wastewater, Power Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Offshore Platforms, Superstructures, Barges), Transportation (Railcar interiors) Truck box lining, Buses, Aircraft), & Waste Water Treatment (Clarifiers, Piping, Tanks, Sweep Arms)
Polyarmor® 490-572 High Elongation Polyurea	1800	325	800	80-85		8-9 sec	High elongation polyurea has excellent physical properties, 100% solids, chemical resistant, abrasion resistant, tough, two part spray coating giving rapid and consistent cure in applications ranging from -20°F to over 300°F	Concrete sealer, Secondary containment areas, Tank linings, Waste Water Linings, Digester Linings, Mechanical Rooms, Pulp & Paper mills, Fertilizer plants



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Polyarmor® 1010-PW Fast Cure Sprayable Coating / Lining	3650	920	525	50		12 sec	ANSI/NSF 61 Approved, USDA Approved, 100% solids, no VOC's, Flexible, 525% elongation, Excellent thermal stability, Shock resistant, Abrasion resistant, Low perm rate, Cures -20°F to +350°F Return to service in 60 min, High Strength, Bridges moving gaps up to 1/8"W, Waterproofs, Bonds to Concrete, Steel or Wood.	Potable Water Containment, Tank Linings, Waste Water Linings, Food Product Containment Lining, Railcar Lining for Food Products, Pipe Line Coating
Polyarmor® ABR-330 Abrasion Resistant Heavy Duty / Severe Service Extremely Low Friction	5300	525	330	50		7 sec	Highly modified polyurea copolymer. It has excellent physical properties, 100% solids, superb abrasion resistance, high-slip, good chemical resistance, tough, two part spray coating giving rapid and consistent cure in applications ranging from -20°F to over 300°F Specifically designed to be used in demanding abrasive installations requiring a flexible coating with good elongation and moderate chemical resistance.	Coal Fired Power Plants (Coal chute lining, all areas where abrasion is a problem), Mining - all types, Coal preparation plants, Aggregate processing, Pulp & Paper - timber & slurry, Steel mills, Aluminum smelters, Copper smelters, Scrap handling equipment
Polyarmor® CFP-68 Highway Marking / Ultra Fast Cure / Severe Service	3500	720	300	58			Highly cross-linked plural component polyurea system that is to be applied in highway marking applications only by trained and experienced applicators using specialized proportioning and dispensing equipment. It is very resistant to attack from hydrocarbons. It's aliphatic and is extremely color stable under the influence of prolonged UV exposure.	Long Lines: Center Lines, Edge Lines Special Markings: Cross walks, Stop Bars, Letterings, Arrows, Characters
Polyarmor® Hi-Mod™ 375 Fast Cure Rigid Re-Surfacer System (patent pending)	7800		8-Jul	83		6 sec	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.	Concrete Re-surfacer, Secondary Containment Areas, Tank 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



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PRODUCT GUIDE

PRODUCT:	Tensile (psi) Test Method D-638	Tear (pli) Test Method D-624	Elongation (%) Test Method D-638	Hardness Test Method Shore "D" D-2240	Toughness	Gel Time	General Characteristics	Recommended Uses
Polyarmor® Hi-Slip 850-52-2 Heavy Duty / Severe Service / Extremely Low Friction	4530	1310	270	54		8-10	Highly cross-linked plural component polyurea system that is to be applied in industrial applications only. It is very slippery. It sheds stick products such as clay, mud, asphalt, ice, frozen coal and other frozen types of products. It is very resistant to attack from hydrocarbons. It has excellent high temperature properties withstanding temps of 400°F	Floors, Walls & Ceilings (Warehouse, Manufacturing, Shop), Structural Steel (Bridges, Tanks, Pipe lining), Industrial Plants (Chemical, Petroleum, Wastewater, Power Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Off-shore Platforms, Superstructures, Barges), Transportation (Railcar interiors {frozen coal, sticky latex, etc.}), (Truck boxes {asphalt, frozen sand, salt, etc.}), Waste Water Treatment (Clarifiers, Piping, Tanks, Sweep Arms)
Polyarmor® Warrior™ 240 Fast Cure Spray Elastomer System (patent pending)	5180	1395	240	62		6 sec	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 - over 400°F. To be used in demanding installations requiring an elastomeric coating with superior physical properties and very high durability in harsh chemical environments.	Secondary Containment Areas, Tank Linings, Waste Water Linings, Digester Linings, Mechanical Rooms, Pulp & Paper mills, Fertilizer Plants, Petrochemical facilities, Pipe Line Coating, Cooking Tower Lining, Petroleum Prod. & Storage, Oil & Gas Transmission, Refineries
Polyarmor® Warrior™ 260 Fast Cure Spray Elastomer System	5350	730	260	62		6 sec	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 - over 400°F. To be used in demanding installations requiring an elastomeric coating with superior physical properties and very high durability in harsh	Secondary Containment Areas, Tank Linings, Waste 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



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PRODUCT GUIDE

PRODUCT:	Tensile (psi) Test Method D-638	Tear (pli) Test Method D-624	Elongation (%) Test Method D-638	Hardness Test Method Shore "D" D-2240	Toughness	Gel Time	General Characteristics	Recommended Uses
Polyarmor® Warrior™ 1100 Low Friction Fast Cure Spray Elastomer System	5000	1760	220	62			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 -20oF - over 400°F. Used in demanding installations requiring an elastomeric coating, superior physical properties and very high durability in harsh chemical environments.	Secondary Containment Areas, Tank Linings, Waste Water Linings, Digester Linings, Mechanical Rooms, Pulp & Paper mills, Fertilizer Plants, Petrochemical facilities, Pipe Line Coating, Cooking Tower Lining, Petroleum Prod. & Storage, Oil & Gas Transmission
PolyPro™ Pro Concrete Primer One Component (2k) Polyurea Moisture Tolerant Solvent Free						?	One component (2K) polyurea system, moisture tolerant - cures well over damp concrete, no solvents, 100% solids, "0" VOC, low odor, High elasticity, Low viscosity, Reactive polymer designed to wick into concrete, Extremely moisture insensitive, Assists in sealing porous concrete, Promotes adhesion of topcoat to concrete, Tough, flexible, highly elastomeric primer	
PolyPro™ 2058 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Topcoat	1280	265	200	45		?	Ideal for horizontal work and thin film vertical, No solvents, 100% solids "0" VOC, High-gloss, self-priming coating, rapid tack time, Good gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Color stable, UV resistant topcoat, Good abrasion impact resistance, Tough, flexible, highly elastomeric polymer	Light to regular duty service where color stability is important - Warehouse, Manufacturing, Office, Industrial Plants (Chemical, Petroleum, Wastewater, Power, Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Flat Industrial and Commercial Roofing
PolyPro™ 2060 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Topcoat	1420	280	230	50		?	Walls & Ceilings (Warehouse, Manufacturing, Office, Shop), Structural Steel (Bridges, Tanks, Piping), Industrial Plants (Chemical, Petroleum, Wastewater, Power, Pulp & paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Offshore Platforms, Superstructures, Barges), Transportation (Railcar interiors/ exteriors, Truck exteriors, Buses, Aircraft)	Excellent vertical hang, resistant to sag, No solvents, 100% solids, "0" VOC, High-gloss, Self-priming coating, rapid tack time, Good gloss retention, Use over wood, concrete and metal, Very moisture insensitive, Color stable, UV resistant topcoat, good abrasion and impact resistance, Tough, flexible, highly elastomeric polymer



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PRODUCT GUIDE

PRODUCT:	Tensile (psi) Test Method D-638	Tear (pli) Test Method D-624	Elongation (%) Test Method D-638	Hardness Test Method Shore "D" D-2240	Toughness	Gel Time	General Characteristics	Recommended Uses
PolyPro™ 2062 Standard Duty / Regular Service Aliphatic One Component (2k) Polyurea Clear Topcoat	1280	265	200	40		?	Protect Decorative Surfaces (artwork, logos, carvings, mosaics, fancy masonry), transparent weatherproofing for signage (store signs, temporary highway signs, graphics), seal against light abrasion and chemical damage (decks, park benches, tables, counters, furniture, moldings, playground equipment), transparent weather proofing for construction (wood, concrete, decorative masonry), optically clear topcoat	Clear, color stable, UV protected topcoat, No solvents, 100% solids, "0" VOC, High-gloss, self-priming coating, rapid tack time, Good gloss retention, Use over wood, concrete and metal, very moisture insensitive, rapid tack-free time, good abrasion and impact resistance, tough, flexible, highly elastomeric polymer
PolyPro™ 6058 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	6000	550	500	50		?	Ideal for horizontal work and thin film vertical, No solvents, 100% solids "0" VOC, High-gloss, self-priming coating, rapid tack time, Excellent gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Color stable, UV resistant topcoat, Outstanding abrasion and impact resistance, Tough, flexible, highly elastomeric polymer	Floor Coating, Promenade Decks (Warehouse, Manufacturing, Office, Walks), Structural Steel (Bridges, Tanks, Piping), Industrial Plants (Chemical, Petroleum, Wastewater, Power, Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Offshore Platforms, Superstructures, Barges), Transportation (Railcar interiors/ exteriors, Truck exteriors, Buses, Aircraft)
PolyPro™ 6060 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	6000	550	480	50		?	Ideal for vertical, overhead and horizontal, No solvents, 100% solids, "0" VOC, High-gloss, self-priming coating, rapid tack time, Excellent gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Color stable, UV resistant topcoat, Outstanding abrasion and impact resistance, Tough, flexible, highly elastomeric polymer	Walls & Ceilings (Warehouse, Manufacturing, Office, Shop), Structural Steel (Bridges, Tanks, Piping), Industrial Plants (Chemical, Petroleum, Wastewater, Power, Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Offshore Platforms, Superstructures, Barges), Transportation (Railcar interiors/ exteriors, Truck exteriors, Buses, Aircraft)



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PRODUCT GUIDE

PRODUCT:	Tensile (psi) Test Method D-638	Tear (pli) Test Method D-624	Elongation (%) Test Method D-638	Hardness Test Method Shore "D" D-2240	Toughness	Gel Time	General Characteristics	Recommended Uses
PolyPro™ 6062 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Clear Topcoat	4850	495	525	48		?	Clear, color stable, UV protected topcoat, No solvents, 100% solids, "0" VOC, High-gloss, self-priming coating, Excellent gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Rapid tack-free time, Outstanding abrasion and impact resistance, Tough, flexible, highly elastomeric polymer	Floor Coating, Protect Decorative Surfaces (artwork, logos, carvings, mosaics, fancy masonry), Transparent Weatherproofing for Signage (store signs, temp. highway signs, graphics), Seal Against Abrasion and Chemical Damage (floors, decks, park benches, tables, counters, Furniture, moldings, playground equipment), Transparent Weatherproofing for Construction (Wood, Concrete, Decorative Masonry), Optically Clear Topcoat Over Paint
PolyPro™ 6120 Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Topcoat	6200	580	450	56		?	Ideal for vertical, overhead and horizontal, No solvents, 100% solids, "0" VOC, High-gloss, self-priming coating, rapid tack time, Excellent gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Color stable, UV resistant topcoat, Outstanding abrasion and impact resistance, Tough, flexible, highly elastomeric polymer	Walls & Ceilings (Warehouse, Manufacturing, Office, Shop), Structural Steel (Bridges, Tanks, Piping), Industrial Plants (Chemical, Petroleum, Wastewater, Power, Pulp & Paper, Manufacturing, Food & Beverage, Agricultural), Marine (Ship Hulls, Docks, Decking, Offshore Platforms, Superstructures, Barges), Transportation (Railcar interiors/ exteriors, Truck exteriors,
PolyPro™ 6122 Clearcoat Heavy Duty / Severe Service / Aliphatic One Component (2k) Polyurea Clear Topcoat	5100	535	500	52		?	Clear, color stable, UV protected topcoat, No solvents, 100% solids, "0" VOC, High-gloss, self-priming coating, Excellent gloss retention, Use over wood, concrete and metal, Extremely moisture insensitive, Rapid tack-free time, Outstanding abrasion and impact resistance, Tough, flexible, highly elastomeric polymer	Floor Coating, Protect Decorative Surfaces (artwork, logos, carvings, mosaics, fancy masonry), Transparent Weatherproofing for Signage (store signs, temp. highway signs, graphics), Seal Against Abrasion and Chemical Damage (floors, decks, park benches, tables, counters, Furniture, moldings, playground equipment), Transparent Weatherproofing for Construction (Wood, Concrete, Decorative Masonry), Optically Clear Topcoat Over Paint