

POLYARMOR® Sealent 45-000

Polyurea Joint Sealent

APPLICATION CHARACTERISTICS

STORAGE: Materials should be stored in original un-opened containers indoors between 65°F (18°C) and 90°F (32°C) and at or below 50% RH.

SHELF LIFE: Un-opened containers 1 year from date of manufacture.

PACKAGING KITS/ PART NUMBERS:
Volume Mix Ratio: 1A: 1B

UJS-4124 Medium Grey 300ml
x300ml tube 53LF (1/4" x 1/4")
UJS-4124/12

POLYARMOR® SEALENT 45-000
Bulk 10 gallon pail kit 3080LF (1/4" x 1/4")

POLYARMOR® SEALENT 45-000-A/5,
POLYARMOR® SEALENT 45-000-B/5,
CP-U####/HP

OPTIONS:

Color Pack: Tubes are available in Med Grey and Dark Red.

Color packs designated as **CP-U####/HP** can be used with **POLYARMOR® SEALENT 45-000**. Many standard and custom colors are available; please refer to the price list for available colors. It is important to have a color consistent between the mortar and joint.

LIMITATIONS:

Contamination and surface defects (fisheyes): If contaminates of oils, silicones, mold release agents and/or others are present, Top coats of **POLYARMOR® SEALENT 45-000** may fisheye or crawl away from the surface. Surface contaminates should be removed with a suitable detergent prior to application. Solvent cleaning of silicone contaminates may make the situation worse; please contact the lab for additional recommendations. **POLYARMOR® SEALENT 45-000** May amber over time from UV exposure.

POLYARMOR® SEALENT 45-000 is a rapid set two component "Aromatic Polyurea" flexible joint filler. Packaging is available in contractor tubes and bulk pails for machine dispensing. **POLYARMOR® SEALENT 45-000** has superior chemical resistance, thermal shock resistance, and the ability to cure at low temperatures making it ideal for use as a control joint filler with **Polyarmor® UC Mortar 90-000** and **POLYARMOR® EP MORTAR 10-000** as well as standard concrete horizontal surfaces.



APPLICATION

MIXING: **POLYARMOR® SEALENT 45-000** is a rapid set polymer and requires a 1:1 ratio pump and static mixer to install (Do not hand mix).

COLORS: Premix designated color pack (if used) **CPEP-U####/HP**. The color pack should be mixed with **POLYARMOR® SEALENT 45-000-A** prior to filling the dispensing machine.

MIX: Shake caulk tube together for 3 minutes to mix color prior to dispensing with caulk gun.

APPLY POLYARMOR® SEALENT 45-000: at a rate of 1/4"-1" to the floor surface using a caulk gun or dispensing pump. Do not over fill as joint material will over flow onto the surface of the floor.

CURING (DRYING): Allow the **POLYARMOR® SEALENT 45-000** to set for 45 minutes and shave flat to the flooring surface with a razor. Cure (dry) for a minimum 24 hours after application at 75°F (24°C) and 50% RH before grinding and applying the other coatings as a top coat. Only open the floor to light traffic after sufficient cure, allow more time for low temperatures and higher humidity or for heavier traffic. Full coating properties may take up to 7 days to develop.

TECHNICAL SUPPORT

For application questions, please contact your VISURON TECHNOLOGIES, INC. salesman or technical service.

DISPOSAL

Dispose in accordance with federal, state, and local regulations.

USES

POLYARMOR® SEALENT 45-000 protects joints in industrial floor joints subject to heavy traffic and abuse from trucks, cars, forklifts, and steel-wheeled carts. Used to fill, rebuild, and repair control and construction joints in concrete and polymer flooring mortars as well as patching random cracks, patch gouges, holes and surface defects. **POLYARMOR® SEALENT 45-000** is flexible, allowing for limited crack movement protecting concrete and polymer flooring edges from spalling under heavy loads.

ADVANTAGES:

- Odorless
- Rapid cure in minutes
- High chemical resistance
- Excellent impact and abrasion resistance
- Flexible, 600% elongation
- Remains flexible in cold environments
- Resists hot water dumping up to 250°F
- Resists staining and major chemical spills of cleaning and industrial chemicals
- USDA Approved
- Complies with VOC regulations for Industrial Maintenance Coatings in the OTC and CA.

MATERIAL PROPERTIES*:

Properties	Test Method	Results
Flash Point	ASTM D3278	≥215 °F (102°C)
Volume Solids (mixed resin)	ASTM D2369	100 %
Mixed Viscosity (resin only)	ASTM D2196	2000 cPs
Set Time		Set time 2 minutes
Tack Free 45 minutes		
Cure 1-7 days		
VOC-Volatile Organic Compound	ASTM D3960	0 g/l

CURED PROPERTIES*:

Properties	Test Method	Results
Hardness	ASTM D2240	85-90 Shore A
45 Shore D		
Tensile Strength	ASTM D638	
Type V Micro	1800 psi	
Tensile Modulus	ASTM D638	
Type V Micro	735 psi @50%	
885 psi @100%		
1200 psi @200%		
Tensile Elongation	ASTM D638	
Type V Micro	600%	
Adhesion to Concrete	ASTM D4541	350 psi concrete failure
Application Thickness		1/4" x 1/4" to 1" x 1"

*Properties and results are based on laboratory testing at 72°F (22°C) %50 RH, theoretical calculations and estimates. Typical properties, as stated, are to be considered as representative of current production and should not be treated as specifications.

COVERAGE RATE:

Linear Feet per Gallon (Approximate)

Inches	1/4	1/2	3/4	1
1/4	308	154	103	72
1/2	154	72	51	38
3/4	103	51	38	26
1	72	38	26	19



VISURON
TECHNOLOGIES, INC.

For More Information:
770-815-4548 (tel)
sales@visuron.com
www.visuron.com

POLYARMOR® Sealent 45-000

Polyurea Joint Sealent

RECOMMENDED APPLICATION

POLYARMOR® ESL MORTAR 60-000 should be applied at a minimum 60 mils and will cover 210 square feet per mix. CURING AGENT USAGE: POLYARMOR® ESL MORTAR 60-000GP-B is a General Purpose curing agent POLYARMOR® ESL MORTAR 60-000FS-B is a **Fast Setting FS** curing agent. Both may amber over time.

Linear Feet per 300ml x 300ml caulk tube (Approximate)

Inches	1/4	1/2	3/4	1
1/4	53	27	18	13
1/2	27	13	9	7
3/4	18	9	6	4
1	13	7	4	3

CHEMICAL RESISTANCE*:

POLYARMOR® SEALENT 45-000	1 Day	7 Days
ACIDS, INORGANIC		
10% Hydrochloric	E	E
10% Nitric	E	E
50% Phosphoric	G	F
10% Sulfuric	G	F
ACIDS, ORGANIC		
10% Acetic	G	F
10% Citric	G	F
ALKALIES		
10% Ammonium Hydroxide	E	E
50% Sodium Hydroxide	E	E
SOLVENTS		
Ethylene Glycol	E	G
Isopropanol	F	F
Methanol	P	P
d-Limonene	E	E
Jet Fuel	G	G
Gasoline	P	P
Mineral Spirits	F	F
Xylene	P	P
MISCELLANEOUS		
20% Ammonium Nitrate	E	E
Brake Fluid	F	P
Bleach	E	E
Motor Oil	E	E
Skydrol®	F	P
20% Sodium Chloride	E	E
10% TSP	E	E
Bleach	E	E
Motor Oil	E	E
Skydrol®500B	E	E
Skydrol®LD4	E	E
20% Sodium Chloride	E	E
10% TSP	E	E

*Based on spot testing of the clear coating after 14 days of cure. Pigmented versions may see reduced chemical resistance and staining.

Legend: E-Excellent (Not Effected) - Recommended
G-Good (Limited Negative Effect) - Short Term Exposure
F-Fair (Moderate Negative Effect) - Not recommended
P-Poor (Unsatisfactory) - No Resistance to Exposure

INSPECTION AND APPLICATION:

Caution! Follow all precautions and instructions prior to installation.

CHECK THE SUBSTRATE CONCRETE: Substrate concrete must be free of curing membrane, silicate surface hardener, paint, or sealer and be structurally sound. If you suspect the concrete has been treated or sealed, prepare substrate for complete removal of treatment.

CHECK FOR MOISTURE: Concrete must be dry before applications of this floor coating. Test concrete for moisture vapor transmission (MVT) using calcium chloride testing ASTM F1869 or in-situ RH testing ASTM F2170. Do not exceed a maximum result of 3 pounds per 1000 sq. ft. over 24 hours or a value below 70% RH (internal concrete humidity).

EXCLUSION: Testing for MVT is critical, however it does not guarantee against future problems. If there is no vapor barrier or the vapor barrier is damaged, this can contribute to floor failure. Contamination to concrete from oils, chemicals, excessive salts or Alkali Silica Reaction (ASR) may also contribute to floor failure.

CHECK THE TEMPERATURE AND HUMIDITY: During the application and cure of the coating, the substrate temperature, material temperature and room conditions should be maintained between 65°F (18°C) and 90°F (32°C). Relative Humidity (RH) should be limited to 30-80%. DO NOT apply coatings unless the floor temperature is more than five degree over the dew point.

APPLICATION EQUIPMENT:

Protective equipment and clothing as called for in the MSDS
300ml x 300ml caulk gun
1:1 ratio machine dispensing pump
Static Mix Tip 32 element 18" x 3/8"
Razor to shave flat
Drill motor mixer

PREPARATION:

Surface dirt, grease, oil and contaminants must be removed by detergent scrubbing and rinsing with clean (clear) water. Cut Joint must be completely dry or POLYARMOR® SEALENT 45-000 will out gas.

Diamond Saw: Cut the joint to the desired thickness and depth. Deep joints can be filled with dry sand or backer rod.

JOINTS: All non moving joints (control joints) can be filled with a semi-rigid joint compound such as POLYARMOR® SEALENT 45-000. Construction joints may need to be re-built and re-cut and then filled with semi-rigid joint filler. Isolation or expansion joints must be filled with a flexible material designed for expansion and should not be coated over. All construction joints in the concrete must be honored in the epoxy mortar (IE: Re-cut and filled in the mortar).

RECOAT: POLYARMOR® SEALENT 45-000 can be coated with other VISURON TECHNOLOGIES, INC. epoxy and urethanes after filling the joint and shaving flat. The prior cured coating surface must be sanded with 100 grit sand paper or sanding screen installed on a swing-type floor buffer. Sand to a uniform dulled surface. Remove all sanding debris with a vacuum and damp mop. Scrub with detergent and rinse with clean water. Surface must be dry before coating.

BARE CONCRETE APPLICATION: POLYARMOR® SEALENT 45-000 does not require a primer, but epoxy primers and be used if desired.

MATERIAL SAFETY DATA SHEET (MSDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

MAINTENANCE GUIDELINES:

Allow floor coating to cure at least one week before cleaning by mechanical means (IE: sweeper, scrubber, disc buffer).

CARE: Increased life of the floor will be seen with proper maintenance and will help maintain a fresh appearance of your new VISURON TECHNOLOGIES, INC. floor. Regularly sweep your new floor as ground in dirt and grit can quickly dull the finish thus decreasing the life of the coating. Spills should be removed quickly as certain chemicals may stain and can permanently damage the finish.

Only soft nylon brushes or white pads should be used on your new floor coating. Premature loss of gloss can be caused by hard abrasive bristle Polypropylene (Tynex®) bushes.

Use only neutral non butyl cleaning detergents on your floor coating. Test any new cleaning product on a non-conspicuous area prior to using to avoid damage to the floor.

CAUTION: Heavy objects dragged across the surface will scratch all floor coatings. Avoid gouging or scratching the surface.

Pointed items or heavy items dropped on the floor may cause chipping or concrete pop out damage. Plasticizer migration from rubber tires can permanently stain the floor coating. If a rubber tire is planned to set on the floor for a long period of time, place a piece of acrylic sheet between the tire and the floor to prevent tire staining. Rubber burns from quick stops and starts from lift trucks can heat the coating to its softening point causing permanent damage and marking.

REPAIR: Repair gouges, chip outs, and scratches as soon as possible to prevent moisture and chemical under cutting and permanent damage to the floor coating.



VISURON
TECHNOLOGIES, INC.

For More Information:
770-815-4548 (tel)
sales@visuron.com
www.visuron.com