

**VELO 90**

**Semi-Rigid Polyurea**

**Joint Fill Compound**

 Rev. 6/22

**■ Description**

**VELO 90** is a heavy duty polyurea joint filler that is designed to protect the brittle joint edges of industrial floors. It cures rapidly and protects industrial floors from damage by heavy and hard wheeled transport of product. It allows for the joints to be shaved quickly for a rapid turnaround. **VELO 90** provides a smooth flat surface and joint protection from transportation of material on forklifts, pallet jacks, stackers, reach trucks, order pickers, tow tractors, AGV’s and other equipment.

**■ Uses/Benefits**

**VELO 90** is not affected by moisture, 100% solids, solvent free, zero VOC’s, tack free within minutes and open to traffic in less than an hour. Shore A hardness of 90 with excellent bonding and elongation properties, easily pigmented with consistent color and equal viscosity of A and B sides for easy mixing. Aromatic formulation is safer for handlers, installers, transporters, and employees.

**■ Technical Data**

Viscosity ASTM 4016 A=1200cpsB=1100cps

Solids 100%

VOC Content 0

Mix Ratio 1:1

Gel Time ASTM D7997 40-50 Seconds

Tack Free 74°F 4 - 5 Minutes

Shore A Hardness ASTM D-2240 90 A

Tear Strength, Die C ASTM D624 200 pli

Tensile Strength, psi ASTM D-412 (7 days) 1500 psi

Elongation ASTM D-412 200%

Shave Time Typical 15 Minutes

Test data shown are typical values obtained under laboratory conditions. Some variations could be found under varied conditions in the field such as temperature, humidity and type of substrate. Foot traffic is generally acceptable within 5 minutes. Complies with LEED® IEQ Credit 4.1. Once cured, this product is inert (chemically inactive). Therefore, it is safe to discard and for use in areas subject to inspection for food safety.

**■ Coverage Rates**

**Joint Joint Depth ►**

**Width**

 **▼** ¾” 1” 1-1/2” 2” 2.5” 3”

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1/8” | 205’ | 154’ | 103’ | 77’ | 62’ | 51’ |
| 3/16” | 137’ | 103’ | 68’ | 51’ | 41’ | 34’ |
| ¼” | 103’ | 77’ | 51’ | 39’ | 31’ | 26’ |
| 3/8” | 68’ | 51’ | 34’ | 26’ | 21’ | 17’ |
| ½” | 51’ | 39’ | 26’ | 19’ | 15’ | 13’ |

1 Gallon = 231 cubic inches, or 128 ounces.

1 Gallon = 5.8 (22 oz.) cartridges.

The chart shown here indicates amounts of lineal feet per gallon. Divide by 5.8 for lineal feet of 22 oz. cartridges.

Estimations must include a percentage for waste such as overfill. Typical deductions for waste range between 10% – 12%.

**■ Limitations/Storage/Shelf Life**

**VELO 90** is designed for interior use only. Product may discolor when exposed to certain UV rays for a prolonged period of time. Store warm and dry. Do not allow to freeze. Best temperature range for storage is between 60°F to 85°F. Best practice: use a blanket of compressed nitrogen to minimize oxidation in any opened container before tightly replacing lid. Twelve (12) month shelf life in unopened original packaging.

**■ Colors/Packaging**

Available in many colors and custom color matching is available. Standard color is Gray. Available packaging: 10 gallon kits, 22 oz. (600 ml) 1:1 cartridges, custom sized kits per request.

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**■ Preparation**

Joint side walls **MUST** be clean and dry exposing open pores of concrete for best adhesion. Always clean and prep both sides of the joint walls with dustless concrete saws and diamond blades. Joint walls and the surface must be square, not tooled or rounded. Anything other than clean open pores on the side walls is a bond breaker and will compromise the ultimate holding values of the joint filler. Vacuum all debris from joint walls and surface area. Test the surface for staining in an inconspicuous area before proceeding on the entire project. To prevent staining, apply a coat of Ivory soap to the slab surface on both sides of the joint to be a bond breaker.

**■ Bulk Mixing**

Pre-mix bulk containers of the B side (polyol) for 2 – 3 minutes with a paddle mixer set on low rpm’s while adding Velo Bond Color Pack contents. Mix slowly with the paddle near the bottom of the pail so as not to introduce air while mixing. The A side never needs to be mixed prior to mixing with the B side. Keep lids on buckets at all times when not mixing to protect the polyurea from humidity. Best practice: use a blanket of compressed nitrogen to minimize oxidation in any opened container before tightly replacing lid.

**■ Cartridges**

Vigorously shake cartridges for approximately 1 minute before dispensing to re-blend the mixture of chemicals and color. Securely attach mixing nozzle with reusable retaining nut, install cartridge into tool, hold upright and slowly dispense material to the end of the nozzle to purge any air in the cartridge, direct nozzle down into waste container and dispense small amount of material to ensure cartridge is equalized and color is consistent. Proceed to fill joints. **Note:** Material will cure within the nozzle if dispensing is stopped for a short period of time. When transferring locations, it is recommended to dispense small amounts into a waste container every 20 seconds to avoid curing within the nozzle.

**■ Installation**

New slabs should be allowed to cure at least 30 days, but the longer the delay the better. If traffic is expected sooner, then joints could be filled early to minimize spalling. If so, budget for additional maintenance and re-filling at a later date due to possible separation from shrinkage while curing. Completely fill joints, slightly overfilling, with a steady cadence being careful not to entrap air. Fill full depth or per jobsite specifications. Once cured, scrape excess **VELO 90** flush to the surface of the floor. Scraping may be done as early as 15 minutes dependent upon conditions. Polishing and/or grinding should first be performed in inconspicuous areas to ensure **VELO 90** has cured enough for these steps.

 **■ Clean Up/Safety**

Cured material can be scraped off the floor and disposed of with other trash. Unmixed product should be mixed and fully cured before disposal. Once cured, this product is inert (chemically inactive). Therefore, it is safe to discard and for use in areas subject to inspection for food safety. Residual fluids and soiled items should be disposed of as required by your local hazardous material regulations. Use all chemical products in well ventilated areas. Handle and wear proper safety attire for protection per SDS documents for this product.

**■ Warranty**

VeloBond, Inc. solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of VeloBond, no other representations or statements made by VeloBond or its representatives, in writing or orally, shall alter this warranty. VeloBond makes no warranties, implied or otherwise, as to the merchantability or fitness for ordinary or particular purposes of its products and excludes the same. If any VeloBond product fails to conform with this warranty, VeloBond will replace the product at no cost to Buyer. Replacement of any products shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claim breach. Velobond does not authorize anyone on its behalf to make any written or oral statements which in any way alter VeloBond’s installation information or instructions in its products literature or on its packaging labels. Any installation of VeloBond products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of VeloBond’s products for the Buyer’s intended purposes.