



TECHNICAL DATA SHEET

VELO 90



POLYUREA JOINT FILL

VELO 90 is a fast-curing, semi-rigid polyurea joint filler designed to protect concrete joint edges from heavy industrial traffic. Its durability and rapid shave time make it ideal for projects requiring fast turnaround and durable performance. The formulation supports smooth material transport across slab joints while standing up to aggressive equipment such as forklifts, pallet jacks, and AGVs.

APPLICATIONS

VELO 90 is suited for high-traffic industrial environments where concrete slabs are subject to repeated impact and abrasion. It is used to fill interior random cracks, damaged or new control joints in horizontal concrete. While intended primarily for interior use, it may be used in exterior areas where minimal joint movement from thermal cycling is expected. Though extended UV exposure may result in slight discoloration, physical performance remains unaffected. Examples include:

- Industrial facilities
- Warehouse floors
- Manufacturing plants
- Airports
- Pulp and paper mills
- Food processing facilities
- Bottling and canning lines
- Water and wastewater treatment plants

ADVANTAGES

- Fast shave time for rapid return to service
- Not affected by moisture
- 100% solids, solvent-free, zero VOCs
- Tack-free within minutes; open to traffic in under an hour
- Excellent bonding and elongation
- Shore A hardness of 90
- Equal viscosity of A and B sides for easy mixing
- Easily pigmented with consistent color
- Aromatic formulation safer for handlers and installers

PHYSICAL PROPERTIES

Color A+B	Varies, can be tinted
Viscosity (mixed)	Self-leveling
Mix Ratio (by volume)	1:1
Gel Time (ASTM D7997)	40-50 seconds
Tack Free (thin film) @ 74°F	4-5 mins
Elongation % (ASTM D-412)	240
Tensile Strength, psi (ASTM D-412)	1590 psi
Shore "A" Hardness (ASTM D-2240)	90 A
Tear Strength, Die C (ASTM D-624)	214 pli
VOC Content (A & B)	0%

Available in
22 oz Cartridges
2-gallon Kits
10-gallon Kits

Shelf Life
6 months in original
unopened container.

Storage Conditions
Recommended storage
temperature is between 60°F
to 85°F. Do not store below
55°F or above 85°F. Do not
freeze.

Consistency
Pourable, self-leveling liquid.

Pot Life
Approx. 30-35 seconds
(100 gram mass)

Appearance
Semi Clear, Custom Color
Matching Available

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MATERIAL COVERAGE PER GALLON

Consider approximately 15% for waste due uneven joint depth and width, overflow of material, nozzle waste, etc.

		JOINT WIDTH						
		1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
JOINT DEPTH	1/8"	1232	821	616	411	308	205	154
	1/4"	616	411	308	205	154	103	77
	1/2"	308	205	154	103	77	51	39
	3/4"	205	137	103	68	51	34	26
	1"	154	103	77	51	39	26	19
	1 1/2"	103	68	51	34	26	19	13
	2"	77	51	39	26	19	13	10
	2 1/2"	62	41	31	21	15	10	7
3"	51	34	26	17	13	8	6	
4"	39	26	19	13	10	7	5	

CARTRIDGE CALCULATION

1. Multiply gallons by 128:

$$10 \text{ gal} \times 128 \text{ oz} = 1280 \text{ oz}$$

2. Divide result by the cartridge size (22 oz):

$$1280 \text{ oz} \div 22 \text{ oz} = 58 \text{ cartridges}$$



APPLICATION RECOMMENDATIONS

Joint sidewalls must be clean and dry, exposing open pores for best adhesion. Use dustless saws and diamond blades to prepare square joint edges—do not use tooled or rounded joints. Vacuum all debris and test for staining in a small area. Ivory soap may be applied as a bond breaker on the slab surface.

Bulk Mixing: Pre-mix the B side (polyol) for 2–3 minutes on low speed while adding the VeloBond Color Pack. Avoid introducing air. The A side does not need pre-mixing. Keep lids closed when not in use.

Cartridges: Shake for 1 minute before use. Purge air and check color before dispensing. If paused, purge the nozzle every 20 seconds to prevent curing inside.

Installation: For best results, wait 30 days after slab placement. If earlier filling is needed, expect potential maintenance from shrinkage. Slightly overfill joints and scrape flush once cured (typically after 15 minutes). Test grinding/polishing in inconspicuous areas before full application.

LIMITATIONS

- Interior use only
- May discolor with prolonged UV exposure

CLEAN UP

Cured material can be scraped from the floor and disposed of without restrictions. Excess liquid 'A' and 'B' components should be mixed together, allowed to fully cure, and then discarded in the normal manner. Cured materials may be stripped or peeled from plastic tools and containers, while metal tools should be cleaned within one hour of use by cutting or peeling away the cured material. All residues should be handled in accordance with local hazardous waste regulations. Always use the product in well-ventilated areas and wear proper safety attire as outlined in the SDS.

SAFETY AND HANDLING

All personnel should read and understand the Safety Data Sheets provided before use. Always work in well-ventilated areas and wear proper safety gear as outlined in the SDS, including long-sleeved overalls or disposable overalls, rubber gloves, splash shields, and rubber or leather boots. Handle chemicals carefully to avoid skin or eye contact, and never use the product near high heat or open flames. Do not take internally, and keep out of the reach of children.

FIRST AID

Remove any contaminated clothing. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician immediately. For respiratory problems, remove person to fresh air. For skin contact, remove immediately with a dry cloth or paper towel. Wash area of contact thoroughly with soap and water. Solvents should not be used because they carry the irritant into the skin. Wash contaminated clothing prior to re-use. Cured products are innocuous.

WARRANTY

HTS warrants its products to be free of manufacturing defects will meet current published physical properties when applied in accordance with HTS directions and tested in accordance with ASTM and HTS standards. There are no other warranties by HTS of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. HTS shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty, whether expressed or implied, including any warranty of merchantability or fitness for a particular purpose or from any other cause whatsoever.

