



TECHNICAL DATA SHEET

BOND 45



CONCRETE SLAB REPAIR

UV Bond is a resilient, UV resistant, non-yellowing, moisture resistant, heavy duty repair product designed to repair cracks and spalls on exterior concrete slabs. This special formulation contains enhanced UV stabilizers, unlike most concrete repair products. UV Bond will not significantly fade or yellow from UV rays from the sun over extended periods of time making it perfect for repairs to exterior concrete, entryways, common area walkways, pool decks, outdoor entertainment areas, and other high visibility exterior slabs. It is moisture insensitive and cures relatively fast yet offers extended working time. Additionally, it relaxes with warmer temperatures allowing for more movement as found outside. The open pores of cracks and spalls in concrete are deeply penetrated due to the longer open time, lower viscosity, and excellent bonding properties. It easily and uniformly accepts pigments for consistent color matches. Variable grades of silica sand and larger aggregate can be added in most cases to best blend with existing concrete slab surfaces. Local dry powder cement, concrete dust and cement powder colorants can also be used to aid in blending finished repairs to existing slabs.

APPLICATIONS

- Rebuilding control joints
- Traffic area spalls & crack repairs
- Grade matching
- Floor repair
- Fill & repair spall before coating
- Used to "knit" cracked slabs
- Fill voids under concrete or tile

ADVANTAGES

- 100% Solids
- Meets USDA and FDA Requirements
- Cures From -20°F to 130°F
- Drive-Over in 45 minutes
- Produces High Strength Quickly
- Optimal shore D hardness range for strength, wear and tear
- Self-priming and self-leveling
- Can be mixed with dry aggregate

PHYSICAL PROPERTIES

Viscosity (ASTM 4016)	
A Side	700 cps
B Side	300 cps
VOC Content	97%, 50 g/L
Mix Ratio (by volume)	1:1
Tack Free (74°F)	2 1/2+ hours
Shore "D" Hardness (ASTM D-2240)	65 to 75D
Tensile Strength (ASTM D417 7 days)	3800 psi
Tear Strength, pli (ASTM D-624)	560
Elongation % (ASTM D-412)	60%
Adhesion (ASTM D7234)	Concrete Failure

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 seconds
(100 gram mass)

Appearance

Semi Clear, Custom Color
Matching Available

UV BOND



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TECHNICAL DATA

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. Once cured, this product is inert (chemically inactive) so it is safe to discard.

COVERAGE RATES

1 Gallon = 128 ounces or 231 cubic inches. Also equivalent to 5.8 (22 oz.) cartridges. Completely fill larger spalls and voids with aggregate when possible to be visible when polished to best blend with the existing concrete finish. Aggregate will result in a higher yield. Add enough to be visible at the surface but never too much that the mix is dry as it may degrade the bond.

PREPARATION

All areas must be clean and dry as possible exposing open pores of concrete. Prep with dustless concrete grinders and saws with diamond blades and HEPA filtered vacuums. Or hand prep with a hammer and a chisel. Remove loose areas back to solid concrete exposing clean open pores. Narrow deep cracks need to be blown and scraped out as best as possible and filled without aggregate unless the width will accept it.

BULK MIXING

Pre-mix B side for 1 minute in 5-gallon containers, using a paddle mixer set on low rpm's, adding pigment if necessary. In 1 gallon containers, shake B side vigorously for 1 minute after adding pigment. Mix equal parts A & B into separate container, mix for 30 seconds. Add aggregate and additional colorants as necessary and place. Keep caps and lids on buckets and jugs at all times when not mixing to protect from humidity.

CARTRIDGES

Bond 45 cures extremely fast and is best dispensed from cartridges. Shake cartridges for 1 minute. Remove cap, install flow restrictor, secure nozzle, place cartridge in tool, hold upright, slowly dispense material to end of nozzle, direct nozzle down into waste container and dispense small amount out to equalize sides and ensure color is consistent. Proceed to fill cracks, etc. Material may cure within the nozzle if dispensing is stopped for too long. When transferring locations, dispense small amounts into a waste container to avoid curing within the nozzle.

INSTALLATION

Only use in well ventilated areas and with proper safety attire. Again, add aggregate and colorants as desired before using

in areas to be repaired. Completely fill cracks, spalls, surface imperfections by slightly overfilling. UV Bond chemicals cross link and create heat. More volume and higher ambient temperatures create more heat and a faster cure. Adding aggregate acts as a heat sink and slows cure times. In addition, colder temperatures and product will slow cure times.

Working time is typically 15 – 25 minutes depending on volume, temperature, and humidity. Cure time is approximately 3 hours or longer. Once cure is complete (will not gum up when grinding), grind flush to the surface causing the least amount of scratching on surrounding areas. When grinding, more aggressive grinding discs will leave a rough surface. Final grinding should be done with finer grit discs for smoothest finishes. Diamond cup wheels, surface conditioning wheels, sanding flap discs and paint removal discs are all acceptable. Lower grit sizes are more aggressive and will remove more product at a faster rate. Higher grit sizes will remove less product but will leave a smoother finish. Always test in inconspicuous areas.

LIMITATIONS

UV Bond is designed for exterior use and should be handled with care. May be used indoors with caution after reading and adhering to all safety warnings found in the SDS documents for this product. Store warm and dry! Slight gassing may occur in the presence of excess moisture. Ensure all areas and aggregate are as dry as possible. Keep lids tightly secured when not in use. Do not allow to freeze. Product hardness will fluctuate with extreme temperatures allowing for some substrate movement. Best practice: use a blanket of compressed nitrogen to minimize oxidation in any opened container before tightly replacing lid. Best temperature range for storage is between 60°F to 95°F. Twelve (12) month shelf life in unopened original packaging. Safely store per the SDS documents for both sides of this product.

CLEAN UP

Cured material is inert and may be disposed of as normal. Unmixed product should be mixed and fully cured before disposal. Residual fluids and soiled items should be disposed of per local hazmat regulations. Use all chemical products in well ventilated areas. Handle and wear proper safety attire for protection per SDS documents for this product.

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.

SAFETY DATA

