



StoneCrete™ Tile Adhesive

Data Sheet

Part A – StoneCrete™ Tile Adhesive – Part # TAD-A

Part B – StoneCrete™ Tile Adhesive – Part # TAD-B

DESCRIPTION: Concrete Solutions® StoneCrete™ Tile Adhesive is an epoxy-based adhesive used to install StoneCrete tiles when added to your local cement and acetone. StoneCrete Tile Adhesive is a 100% solids, two component, epoxy consisting of a high performance bisphenol A epoxy resin blend combined with a cycloaliphatic curing agent. With the latest in epoxy technology this product is formulated for priming, sealing applications and StoneCrete Tile Adhesive can also be used for crack and joint repair. Moisture insensitivity along with low odor makes this versatile, high grade epoxy ideal for a variety of job applications.

TYPICAL USES: Concrete Solutions StoneCrete Tile Adhesive is designed to serve as an adhesive primer to be applied to StoneCrete tiles.

FEATURES & BENEFITS:

- 100% Solids, Zero VOC
- Low viscosity
- Low odor
- Fast setting
- Adheres to damp concrete
- Self leveling
- Resistant to amine blush, resistant to exudation
- Will not crystallize, even in cold environments
- Excellent adhesion – bonds well to concrete and other substrates
- Wide variety of uses; adhesive primer, crack repair material, economical sealer or prime coat
- Not regulated by the DOT
- Can be applied with putty knife, trowel, brush, roller (1/4" – 3/8") or notched squeegee

CHEMICAL PROPERTIES:

	Result
Viscosity, cps	300 – 600
Weight per Gallon	9 lbs
Solids by Volume	100%
Volatile Organic Compounds	0 lbs/gal
Mix Ratio, parts per volume	2A : 1B
Pot Life @ 70°F (21°C), minutes	15 (less in warmer temperatures)
Recoat	6 – 24 hrs
Tack-free	4 – 6 hrs
Full Cure	7 days
Coverage Rate per Gallon	A 1.5 gallon kit of StoneCrete Tile Adhesive will install up to 112 sq. ft. of tiles when combined with the proper amount of acetone and cement.
Recommended Application Temperature (Cures faster in warmer temperatures)	≥35°F (2°C) >45°F (7°C) - <i>for best results</i>
Odor	low
Flash Point	Resin = 400°F (204°C), Hardener = 210°F (99°C)
Shelf Life - unopened containers	12 months

TYPICAL PHYSICAL PROPERTIES:

	Test	Result
Adhesion -Concrete (psi)	ASTM D-903	300
Hardness (Shore D)	ASTM D-2240	82
Tensile Strength (psi)**	ASTM D-412	7500
Flexural Modulus (psi)	ASTM D-790	11900
Elongation (%)**	ASTM D-412	4
Compressive Strength (psi)	ASTM D-695	10000
DTUL	ASTM D-648	140°F (60°C)

MOISTURE VAPOR TESTING: All concrete floors not poured over a proper moisture barrier, are subject to possible moisture vapor transmission or hydrostatic pressure problems which can cause a coating system to blister or fail. Before applying a coating system over a concrete floor which is on-grade or below grade, the customer should be informed of this potential problem and given the option to have a qualified moisture testing company perform calcium chloride test to give the proper recommendations. Rhino Linings Corporation does not warranty against moisture problem failures.

CONCRETE SOLUTIONS® STONECRETE™ TILE ADHESIVE (continued):

SURFACE PREPARATION: The substrate should be thoroughly cleaned; free of any contaminants such as oil, grease or incompatible coating materials. Shotblasting or power scrubbing with detergent, acid washing, neutralizing and pressure washing are common surface preparation methods. It is recommended to apply StoneCrete Tile Adhesive over a dry surface.

MIXING INSTRUCTIONS: As an adhesive for laying tiles: Use these instructions to make enough StoneCrete Tile Adhesive to lay up to 40 sq. ft. of tiles (approximately 8 Ashlar Slate tiles): In a 2 gallon mixing pail combine 48 oz. of StoneCrete Tile Adhesive Part A with 24 oz. of StoneCrete Tile Adhesive Part B. Mix A and B together for 1 minute using a drill and 1 gallon size mixing paddle. Add 36 oz. of acetone, then add 6 – 7 quarts (192 oz. - 224 oz.) of portland cement and mix a few minutes more until creamy and smooth. To make a larger batch, use a 4-5 gallon size pail and double the formula above. Product may be mixed in smaller or larger quantities but only mix the amount of StoneCrete Tile Adhesive that can be used within two hours.

APPLICATION INSTRUCTIONS: Lay one tile upside down on a clean surface with the smooth backside of the tile facing up. While wearing nitrile or rubber gloves, pour approximately 20 – 22 ounces of mixed tile adhesive onto the back of the tile (approximately 20 ounces for Ashlar Slate tiles or 22 ounces for Random Stone tiles). **NOTE: A new roller will absorb approximately 6 ounces of adhesive on the first tile. Additional adhesive will need to be added to make up for this loss.**

Roll the tile adhesive evenly over the back of the tile using a 9" goop loop texture roller. Pour an extra 6 oz. of adhesive over the back of the rolled tile as follows: pour one thin circle all the way around the tile 3 inches in from the outside edge, and a 4-5 inch circle in the center of the tile. Application onto very uneven surfaces may require additional adhesive to achieve a good bond to the surface. It is up to the applicator to determine the proper amount of adhesive for each job or tile to get a proper bond. Carry the tile horizontally to avoid spilling adhesive when moving the tile to its application location. Quickly flip and lay the tile into place and walk on it to press the adhesive against the surface. Clean any stray adhesive from the top of the tile using acetone and a rag. Screw tiles into place after every few tiles are laid to keep them in place until the adhesive dries. Important: Apply adhesive in a shaded area on hot days and keep tiles shaded so they do not get too hot before application.

In temperatures 80 degrees or above, the screws should be ready to remove after 16 hours. In cooler temperatures it is best to wait at least 24 hours before removing the screws. Check for hollow spots once the adhesive has dried by knocking on them. A few hollow spots are normal and can be easily fixed before applying Roll-Top. See the StoneCrete System Training Manual for more details on applying this system.

CRACK AND JOINT REPAIR INSTRUCTIONS: To use StoneCrete Tile Adhesive for filling cracks and joints, mix 2 parts A to 1 part B. Only mix the amount that can be used in 15 -20 minutes. Add 1 – 1¼ parts of dry play sand or #60-#30 silica sand to make a semi-pourable patching mix. Silica sand works best for fine cracks. Mix A and B and then the sand using a drill and 1 gallon size mixing paddle. Fill the cracks and joints (that will be covered with tiles) at least twice as deep as they are wide and flush with the surface using a 4" putty knife. Scrape any excess off the surface. 4" joint repair fabric should be embedded in Tile Adhesive (without sand) over cracks and joints for additional reinforcement. See the StoneCrete Tile Training Manual for more detailed instructions.

NOT RECOMMENDED FOR: Important: Do not use cement-based or water-based regular tile thin sets, grouts, or other types of adhesives with StoneCrete Tiles. Only use StoneCrete Tile Adhesive with StoneCrete Tiles. **For vertical applications**, such as steps, use StoneCrete Vertical Adhesive.

HOW SUPPLIED: StoneCrete Tile Adhesive, 100% solids coating is available in 1.5 gallon and 3 gallon kits

SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)

Chemical systems require the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

For Your Protection: The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors.

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