RICHADH300 Crack Injection Surface Paste

TECHNICAL DATA SHEET

MANUFACTURER: RICHTECH INDUSTRIES • 34000 Lear Industrial Parkway • Avon, OH 44011 • 800-677-7791

CAUTION: THIS MATERIAL IS INTENDED FOR INTERIOR USE OR EXTERIOR APPLICATIONS WHERE SURFACE SEALER WILL BE REMOVED AFTER INJECTION RESIN HAS CURED.

DESCRIPTION

RICHADH300 is a non-structural epoxy paste used primarily for sealing cracks prior to injection with RICH110 or RICH115 hydrophilic urethane resins This FAST SETTING paste enables the user to inject within 30 minutes.

BENEFITS

- Easy 1:1 mix ratio
- No shrinkage
- Excellent adhesion to concrete, wood and metals
- Smooth consistency, easy to feather edge
- Non sag

HOW TO USE

Surface Preparation:

Before application of compound, surface must be clean and sound. Remove all dirt, laitance, grease, curing compounds and other foreign matter. Roughen surface with wire brush or wire wheel.

Mixing:

Blend one Part A with one Part B by volume until uniform gray color [no streaks]. Incorrect mix ratio will prevent proper cure. Do not mix more than can be used within 5-8 minutes.

Application:

Setting surface mount ports

Prepare a small batch RICHADH300 for use as an adhesive for setting ports. Apply a thin bead of material around the perimeter of the ports' base. Center barrel of port over crack and press into place. Be careful not to plug the opening in the bottom of the port.

Sealing crack

Mix additional surface seal material as previously described, then, using a putty knife or margin trowel seal off the crack and around the base of each port. Use forceful strokes of the putty knife or margin trowel while sealing in order to insure proper bond to roughened concrete surface. Apply approximately 1/8" thick layer of material by 3" wide over the center of the crack

PROPERTIES

Mix Ratio:	1:1 by volume
Pot Life:	5-8 minutes
Injectable Cure Time:	30 minutes
Cure Time:	24 hours

(Pot Life, Injectable Cure Time and Cure Time are all @77°F)

CURED

Compressive Strength:	7,920 psi
Tensile Strength:	3,280 psi
Tensile Elongation:	0.2%
Slant Shear Strength:	100% concrete failure
Shore D Hardness:	85 – 90

LIMITATIONS/PRECAUTIONS

Temperature of substrate must be above 40°F. New concrete must be at least 28 days old. Alteration with solvents for thinning purposes will prevent proper cure. **DANGER!** Causes severe eye and skin burns. May cause blindness. Harmful if swallowed. May cause allergic reaction. Do not get into eyes, skin or clothing. Use safety glasses and wear protective rubber gloves. Avoid breathing vapor or mist. Keep container closed. Use only in well ventilated areas. In case of contact, wash immediately with soap and water. Keep away form all food and food containers.

CLEANING

All tools and equipment should be cleaned before the system gels. Use M. E. K. Or safety solvent when necessary.

PACKAGING

22 oz. Dual Cartridges packed 12 sets per case

STORAGE

Product should be stored in a dry environment between 60°F - 80°F.

TECHNICAL SERVICE

Complete technical service and specification services are available from the manufacturer and their authorized representatives.

WARRANTY

All recommendations, statements and technical data contained herein are based on tests we believe to be reliable and correct. Richtech Industries warrants its products to be free of manufacturing defects and that at the time and/or place of shipment our material will meet current published physical properties when applied with ASTM standards. Richtech Industries' liability is limited to the replacement of the material if found to be defective. As Richtech Industries has no control of the use to which others may put its products, it is recommended the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect, engineer, contractor and the owner for the design, application and proper installation of each product. Nothing contained herein shall be construed to be a recommendation to use or as a license to operate under or to infringe any existing patentents.

RICH110 Crack Injection Resin

TECHNICAL DATA SHEET

MANUFACTURER: RICHTECH INDUSTRIES • 34000 Lear Industrial Parkway • Avon, OH 44011 • 800-677-7791

DESCRIPTION

RICH110 is a single component hydrophilic urethane chemical grout. When it comes in contact with water it quickly expands to form a tough flexible closed cell foam which bonds extremely well to concrete. When cured it becomes an extremely tough and flexible barrier against water penetration.

BENEFITS

- Single component [no catalyst required]
- Extremely flexible
- Very tough foam
- Up to 700% expansion
- Penetrates concrete pore structure for superior bond

HOW TO USE

Surface Mount Port Application:

The surface of the crack should be cleaned and roughed with wire brush or wheel to allow for better surface seal bond to concrete. Prepare a small batch of epoxy surface sealer material. Apply a thin bead of material around the perimeter of the ports' base. Center the barrel of the port over the crack and press into place. Space ports approximately every 6" along crack. Mix additional surface seal material and seal off the crack and around the base of each port. Apply approximately 1/8" thick layer of material by 3" wide over the center of the crack. Prior to injecting RICH110 flush crack with clean water beginning at the top port. Cut top cap to keep urethane side covered and fill empty side with tap water. Beginning at the bottom port, inject RICH110 with steady pumps. Pump until resin appears at the next port above. Work your way up the wall until you have reached the top.

Drilled Port Procedure:

- Drill injection port holes at a 45° angle to intersect the crack midway through the depth of the structure. These holes should be approximately 6" to 24" apart depending on the width of the crack.
- Clean the holes out by injecting water through a wand that will reach to the back of the hole.
- Insert packer or bang in port. Remove the zerk tips from all of the ports except the first one to be injected.
- Inject clean water into port at 250 psi min. Air and water will begin to flow out of the crack and ports above. Repeat this process for each port.
- Remove the zerk tips from all ports except the first one to be injected. Be sure to use a different pump or flush the pump thoroughly with solvent.
- Starting with the first port pump RICH110 at 250 psi. Increase the pressure as needed to gain full penetration. Always use the lowest pressure possible to inject the crack. **Never exceed maximum safe operating pressures.**
- Once the material has fully penetrated the crack or begins to flow out of the next port, put the zerk tip on the next port and begin pumping. Repeat this procedure until the entire crack has been pumped.
- Flush out your pump at the end of the day. Material left in the pump may cure overnight and ruin the pump.
- Contact Richtech Industries for further application instructions.

PROPERTIES

Appearance:	Amber Liquid
Viscosity:	600 cps
Weight Per Gallon:	9.1
Induction Time:	20 – 30 Seconds
Cure Time:	4-6 Minutes

(Viscosity, Weight Per Gallon, Working Time/Pot Life and Initial Cure Time all @77°F)

*Cured Foam Test Results**

Tensile Strength:	ASTM D-1623	380 psi
Bond Strength:	ASTM D-1623	250-300 psi
Elongation:	ASTM D-1623	400%
Shrinkage:	ASTM D-1004	Less than 10%
Tear Resistance:	ASTM D-3574	21 lbs./Inch
Density:	ASTM D-3574	494 kg/m3

*Results are based on foam cured under pressure. Properties may vary depending on job conditions.

PRECAUTIONS

Use safety glasses or chemical goggles and gloves when handling materials. Avoid breathing vapors. Vapor overexposure may cause respiratory irritation, central nervous system depression, and allergic reaction. Use adequate ventilation. In case of skin contact, remove any contaminated clothing. Wash area of contact with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Contact physician immediately.

PACKAGING

22 oz. Dual cartridges packed 12 per case

STORAGE

Materials must be stored in dry conditions below 80°F. Under proper conditions. The shelf life is 6 months in unopened containers

WARRANTY

All recommendations, statements and technical data contained herein are based on tests we believe to be reliable and correct. Richtech Industries warrants its products to be free of manufacturing defects and that at the time and/or place of shipment our material will meet current published physical properties when applied with ASTM standards. Richtech Industries liability is limited to the replacement of the material if found to be defective. As Richtech Industries has no control of the use to which others may put its products, it is recommended the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect, engineer, contractor and the owner for the design, application and proper installation of each product. Nothing contained herein shall be construed to be a recommendation to use or as a license to operate under or to infringe any existing patents.

RICH115 Crack Injection Resin

TECHNICAL DATA SHEET

MANUFACTURER: RICHTECH INDUSTRIES • 34000 Lear Industrial Parkway • Avon, OH 44011 • 800-677-7791

DESCRIPTION

RICH115 is a single component super low viscosity hydrophilic polyurethane chemical grout. When it comes in contact with water it expands to form a tough flexible closed cell foam which bonds extremely well to concrete. When cured it becomes an extremely tough and flexible barrier against water penetration.

APPLICATIONS INCLUDE:

- Basement Cracks
- Manholes
- Swimming Pools
- Tunnels

BENEFITS

- Single component [no catalyst required]
- Extremely flexible
- Very tough foam
- Low viscosity for tight cracks
- Penetrates concrete pore structure for superior bond

PROPERTIES

Appearance:	Light Yellow Liquid
Viscosity:	100 cps
Weight Per Gallon:	9 lbs.
Induction Time:	90 Seconds
Cure Time:	3 Minutes

(Viscosity, Weight Per Gallon, Induction Time and Cure Time all @77°F)

*Cured Foam Test Results**

Tensile Strength	ASTM D-412	55 psi
Elongation	ASTM D-412	300%
Die-C Tear	ASTM D-624	12 pli

*Results are based on foam cured under pressure. Properties may vary depending on job conditions.

HOW TO USE

Surface Mount Port Application:

The surface of the crack should be cleaned and roughed with wire brush or wheel to allow for better surface seal bond to concrete. Prepare a small batch of epoxy surface sealer material. Apply a thin bead of material around the perimeter of the ports' base. Center the barrel of the port over the crack and press into place. Space ports every 4" to 6" along crack. Mix additional surface seal material and seal off the crack and around the base off each port. Apply approximately 1/8" thick layer of material by 3" wide over the center of the crack. Prior to injecting RICH115, fill empty cartridge from the top with water (cut off half of white top plug, DO NOT REMOVE BLACK PLUNGER FROM BOTTOM). Remove plug and install mixer/nut. Beginning at the bottom port, inject RICH115 with slow, steady pumps. Pump until resin appears at the next port above. Work your way up the wall until you have reached the top.

Drilled Port Procedure:

- Drill injection port holes at a 45° angle to intersect the crack midway through the depth of the structure. These holes should be approximately 6" to 24" apart depending on the width of the crack.
- Clean the holes out by injecting water through a wand that will reach to the back of the hole.
- Insert packer or bang in port. Remove the zerk tips from all of the ports except the first one to be injected.
- Inject clean water into port at 250 psi min. Air and water will begin to flow out of the crack and ports above. Repeat this process for each port.
- Remove the zerk tips from all ports except the first one to be injected. Be sure to use a different pump or flush the pump thoroughly with solvent.
- Starting with the first port pump RICH110 at 250 psi. Increase the pressure as needed to gain full penetration. Always use the lowest pressure possible to inject the crack. **Never exceed maximum safe operating pressures.**
- Once the material has fully penetrated the crack or begins to flow out of the next port, put the zerk tip on the next port and begin pumping. Repeat this procedure until the entire crack has been pumped.
- Flush out your pump at the end of the day. Material left in the pump may cure overnight and ruin the pump.
- Contact Richtech Industries for further application instructions.

PRECAUTIONS

Use safety glasses or chemical goggles and gloves when handling materials. Avoid breathing vapors. Vapor overexposure may cause respiratory irritation, central nervous system depression, and allergic reaction. Use adequate ventilation. In case of skin contact, remove any contaminated clothing. Wash area of contact with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Contact physician immediately.

PACKAGING

16.5 oz. Dual cartridges packed 15 per case

STORAGE

Materials must be stored in dry conditions below 80°F. Under proper conditions. The shelf life is 6 months in unopened containers.

WARRANTY

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