

ERATM420

Epoxy Resin Adhesive



Building
&
Transportation



Oil, Gas
&
Industrial



Offshore
&
Onshore



Water
&
Wastewater



PRODUCT DESCRIPTION

The CTech-LLC[®] Epoxy Resin Adhesive (**ERATM420**) is a two - component, high performance, solvent-free, 100% solids, low odor, offering outstanding shear and peel adhesion and very high levels of durability. This system consists of a resin and a hardener that can be formulated to offer a wide range of mechanical, thermal, optical and electrical properties.

ADVANTAGES

- Exceptional adhesion properties
- Good high and low temperature properties
- High Strength
- Moisture Insensitive
- Ambient cure
- Uniform stress distribution
- Easy application
- Long-term durability
- Gap filling capability
- Resistant to extreme shock, vibration, and flexing
- High fatigue strength.
- Low odor improves workplace environment

TYPICAL USES

- Connection of concrete to metals, overhead or vertical surfaces, and undersides of beams when applying composite materials, horizontal or vertical surfaces where excellent adhesion to a substrate is necessary for maximum strength, wall surfaces, and any surface where bonding between fabric and substrate is critical.
- Rigid pick-proof sealant for windows doors, joints, and more.
- Cap seal for crack injection and repair of concrete defects.
- Paste new concrete on old concrete sections.
- Use in passages, streets, bridges, sidewalks and factory loading locations.
- Covering concrete surfaces against permanent moisture.

INSTALLATION PROCEDURE

SURFACE PREPRATION

- For retrofitting applications, substrate preparation can highly effect

on the quality of the performance of systems.

- All the surfaces must be cleaned from dirt, grime, dust, curing compounds, oils, grease, waxes and all the other contaminated materials.
- Repair mortar must be used to repair all the eroded or damaged concrete surfaces.
- An industrial vacuum cleaner must be used to remove dust and dirt.
- All the surfaces need grinding, Sandblasting, shot blasting, pressure wash or other common mechanical methods to reach an even concrete substrate.
- The sharp edges must be smooth and rounded to a minimum radius of 30 mm.
- Note that concrete surfaces must be fully dried or cured so adhesive can properly dry.

MIXING

Epoxy compounds are usually supplied in two different containers. Before pouring the contents of component B into contents of component A, each part should be stirred separately to avoid deposit in container. Then part A and B should be mixed together depending on the required quantity. Process of mixing should take 2-3 minutes with a low speed mixer.

APPLICATION

After mixing resin and hardener, you'll have about 90 minutes time (at temperature 21°C) to apply the

material. Clean mixing tools with a proper towel to reuse them. Note that using a roller can help to eliminate air bubbles in the resin and substrate.

breathing with difficulty.

Resin products can cause strong eye irritation. Avoiding eye contact and using safety goggles is necessary.

PHYSICAL PROPERTIES

Chemical Base	Epoxy resin
Mixing Ratio	100:50 Part A: 100 Part B: 50
Color	Component A is grey paste Component B is white paste Mixed resin and hardener is grey paste
Pot Life	90 Minutes at 21° C
Density at 21° C ASTM D792	Component A = 1.30kg/L Component B = 1.20kg/L Mixed product =1.26kg/L
Application Methods	Hand lay-up
Shelf Time	18 month
Storage Condition	Store dry and away from direct sunlight 10-35° C

MECHANICAL PROPERTIES

Property	ASTM Method	Test Value*
Tg	D4065	70° C
Tensile Strength	D638 Type1	<25 MPa
Tensile Modulus	D638 Type1	<2.1 GPa
Elongation Percent	D638 Type1	<1.0 %
Compressive Strength	D695	<30 MPa
Compressive Modulus	D695	<2.1 GPa

* Curing schedule 72 hours post cure at 60° C.

* Testing temperature: 21°C

STORAGE & SHELF LIFE

- Epoxy resin adhesive can be stored for two years in its original packaging. Lid of the container should be kept closed. Moisture can decrease shelf life of epoxy adhesive.
- ERA™420 should be stored in a dry and cool place at 10° to 35° C. Avoid freezing the product and keep it away from direct sunlight, flame or other hazards.

CAUTION

All components of FRP composite systems may cause skin irritation and sensitization. Use of chemical resistant gloves is recommended.

Avoid breathing vapors and dust. Get medical attention if you are

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IMPORTANT NOTE:
Before using any CTech-LLC[®] product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at www.ctech-llc.com.

WARANTY:
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