



# ULTRABOND 5400

## Tech Data Sheet

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## High Strength Segmental Pre-Cast Adhesive

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**Description:** Ultrabond 5400 is a two component 100% solids epoxy, solvent free, high strength, high modulus, moisture insensitive, non-sag paste epoxy adhesive. Formulated for use to bond pre-cast segmental box girders, bridge and other segmental construction. It is an excellent choice for any application where bonding concrete to concrete is required.

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**Uses and Advantages:** High strength segmental pre-cast adhesive  
Bonding agent (metal, concrete, brick, wood, stone, block)  
Structural bonding of concrete to concrete  
The 1:1 ratio are easy and convenient to mix.  
Moisture insensitive during and after cure.  
Concrete gray color when mixed.  
Non-sag paste formula.

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**Classification:** Independently Tested: Meets ASTM C881-99: Type VI, Grade 3, Class E.

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**Packaging:** Ultrabond 5400 is available in 1 gallon, 2 gallon, and 10 gallon kits.  
Coverage: 1 Gallon yield 231 cu. in. of epoxy  
1.8 cu. in. = 1 fl. oz.

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### COVERAGE

Thickness (1000 mils = 1 in.)	Coverage / Gallon
1/4" = 250 mils	6.4 sq. ft.
3/16" = 187 mils	8.5 sq. ft.
1/8" = 125 mils	12.8 sq. ft.
1/16" = 62.5 mils	25.5 sq. ft.

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### How To Use:

**BULK USE:** Pre-mix each component "A" and "B" separately. Then mix all of part "A" with all of part "B" until a uniform gray color with no streaks is achieved. Mix with a

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drill on low speed (400 rpm) for a minimum of three minutes. Make sure to scrape the sides and bottom to thoroughly mix all contents. Mix the epoxy in 1:1 proportions. Mix only the quantity that can be used within the pot life of the adhesive. Read and follow the complete instruction guide for anchoring and doweling with bulk adhesives.

## TECHNICAL DATA FOR ULTRABOND 5400

<b>Shelf Life</b>		<b>2 years</b>
<b>Storage Conditions</b>		<b>below 90° F</b>
<b>Color</b>		<b>Concrete Gray</b>
<b>Consistency/Viscosity</b>	<b>ASTM C881</b>	<b>Non-Sag Paste</b>
<b>Temperature Range</b>		<b>60° F - 85° F</b>
<b>Mixing Ratio A:B (Volume)</b>		<b>1:1</b>
<b>Gel Time (1 gallon @ 78° F)</b>	<b>ASTM C881</b>	<b>31 minutes<sup>1</sup></b>
<b>Contact Time: Thin film</b>		<b>90 minutes<sup>1</sup></b>
<b>Bond Strength - 2 days</b>	<b>ASTM C882</b>	<b>1,300 psi</b>
<b>Bond Strength - 14 days</b>		<b>1,790 psi</b>
<b>Water Absorption – 24 hrs</b>	<b>ASTM D570</b>	<b>0.46 %</b>
<b>Linear Shrinkage</b>		<b>0.002 cm/cm</b>
<b>Compressive Yield Strength – 1 day</b>	<b>ASTM D695</b>	<b>2,120 psi</b>
<b>Compressive Yield Strength – 2 days</b>		<b>6,780 psi</b>
<b>Compressive Modulus Strength – 1 day</b>	<b>ASTM D695</b>	<b>42,800 psi</b>
<b>Compressive Modulus Strength – 2 days</b>		<b>135,910 psi</b>
<b>Heat Deflection Temperature</b>	<b>ASTM D648</b>	<b>138° F</b>
<b>Tensile Strength - 7 days</b>	<b>ASTM D638</b>	<b>7,320 psi</b>
<b>Elongation at Break – 7 days</b>		<b>1.8%</b>
<b>Contact Yield Strength (2 day Cure)</b>	<b>ASTM D638</b>	<b>1,220 psi</b>

1. Gel and Contact Times lengthen as temperatures decrease and shorten as temperatures increase.

Independent test reports available upon request  
For technical support call: Adhesives Technology Corp. at 1-800-892-1880

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