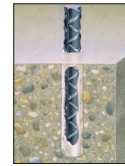


Adhesive Anchoring Selection Guide

Solid Concrete Applications



Doweling into Concrete with Rebar



Fastening to Concrete with Threaded Rod

PRODUCT SYSTEMS	KEY FEATURES	PROPERTIES	STRENGTH DESIGN PERFORMANCE ^{1,2}																											
<p>A7+ Fast Dispensing, Fast Curing Acrylic Install more anchors in less time</p> <p>5 fluid oz. (150 ml) kit, 9.5 fluid oz. (280 ml) and 28 fluid oz. (825 ml) cartridges</p> 	<ul style="list-style-type: none"> Solid or hollow base materials Dispenses easier and faster Use in dry, saturated, and water-filled holes Fastest cure (35 min. at 60°F) Dispenses and cures faster in cold weather Can be used in smaller diameter holes No-drip formula Hand dispensable 28-oz. cartridge 18 month shelf life NSF/ANSI 61 	<table border="1"> <thead> <tr> <th>BASE MATERIAL (F°/C°)</th> <th>GEL/WORKING TIME</th> <th>FULL CURE TIME</th> </tr> </thead> <tbody> <tr> <td>110°/ 43°</td> <td>1.5 minutes</td> <td>45 minutes</td> </tr> <tr> <td>90°/ 32°</td> <td>3 minutes</td> <td>45 minutes</td> </tr> <tr> <td>70°/ 21°</td> <td>5 minutes</td> <td>45 minutes</td> </tr> <tr> <td>50°/ 10°</td> <td>15 minutes</td> <td>90 minutes</td> </tr> <tr> <td>30°/ -1°</td> <td>35 minutes</td> <td>4 hours</td> </tr> <tr> <td>14°/ -10°</td> <td>35 minutes</td> <td>24 hours</td> </tr> </tbody> </table>	BASE MATERIAL (F°/C°)	GEL/WORKING TIME	FULL CURE TIME	110°/ 43°	1.5 minutes	45 minutes	90°/ 32°	3 minutes	45 minutes	70°/ 21°	5 minutes	45 minutes	50°/ 10°	15 minutes	90 minutes	30°/ -1°	35 minutes	4 hours	14°/ -10°	35 minutes	24 hours	<p>NSF Certified to ANSINFSF 61</p>  <p>3,871 10,752 23,171</p> <p>3/8" x 3-3/8" 5/8" x 5-5/8" 1" x 9"</p>						
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<p>C6+ High Strength Epoxy for All Conditions Delivers better load performance</p> <p>10 fluid oz. (250 ml) cartridges 20 fluid oz. (600 ml) cartridges</p> 	<ul style="list-style-type: none"> 35% greater bond strength than the closest competition in 70°F concrete Better performance in dry, saturated, and water-filled conditions Oversized and Diamond cored holes Safe and durable Approved for cracked concrete and seismic zones 24 month shelf life NSF/ANSI 61 	<table border="1"> <thead> <tr> <th>BASE MATERIAL¹ (F°/C°)</th> <th>WORKING TIME²</th> <th>FULL CURE TIME</th> </tr> </thead> <tbody> <tr> <td>104°/ 40°</td> <td>3 minutes</td> <td>3 hours</td> </tr> <tr> <td>95°/ 35°</td> <td>4 minutes</td> <td>4 hours</td> </tr> <tr> <td>86°/ 30°</td> <td>6 minutes</td> <td>5 hours</td> </tr> <tr> <td>77°/ 25°</td> <td>8 minutes</td> <td>6 hours</td> </tr> <tr> <td>72°/ 22°</td> <td>11 minutes</td> <td>7 hours</td> </tr> <tr> <td>59°/ 15°</td> <td>15 minutes</td> <td>8 hours</td> </tr> <tr> <td>50°/ 10°</td> <td>20 minutes</td> <td>12 hours</td> </tr> <tr> <td>40°/ 4.4°</td> <td>20 minutes</td> <td>24 hours</td> </tr> </tbody> </table>	BASE MATERIAL ¹ (F°/C°)	WORKING TIME ²	FULL CURE TIME	104°/ 40°	3 minutes	3 hours	95°/ 35°	4 minutes	4 hours	86°/ 30°	6 minutes	5 hours	77°/ 25°	8 minutes	6 hours	72°/ 22°	11 minutes	7 hours	59°/ 15°	15 minutes	8 hours	50°/ 10°	20 minutes	12 hours	40°/ 4.4°	20 minutes	24 hours	<p>NSF Certified to ANSINFSF 61</p>  <p>3,489 9,692 24,811</p> <p>3/8" x 3-3/8" 5/8" x 5-5/8" 1" x 9"</p>
BASE MATERIAL ¹ (F°/C°)	WORKING TIME ²	FULL CURE TIME																												
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<p>G5 High Strength Epoxy Tested to ICC-ES AC308 15 min. working time; 24 hour cure time (Per AC308) (70°F)</p> <p>22 fluid oz. (650 ml) cartridge</p>  <p>MADE IN USA</p>	<ul style="list-style-type: none"> Solid base materials Fire rated: tested up to 4hrs FRP Works in dry, damp, saturated, and underwater applications Gives more time to install anchors Easier to install anchors in hot weather Odorless Oversized and cored holes Improved wet/water filled Resist wind loads 18 month shelf life 100% solid (No V.O.C.) NSF/ANSI 61 	<table border="1"> <thead> <tr> <th>BASE MATERIAL (F°/C°)</th> <th>WORKING TIME</th> <th>FULL CURE TIME</th> </tr> </thead> <tbody> <tr> <td>110°/ 43°</td> <td>9 minutes</td> <td>24 hours</td> </tr> <tr> <td>90°/ 32°</td> <td>9 minutes</td> <td>24 hours</td> </tr> <tr> <td>70°/ 20°</td> <td>15 minutes</td> <td>24 hours</td> </tr> </tbody> </table>	BASE MATERIAL (F°/C°)	WORKING TIME	FULL CURE TIME	110°/ 43°	9 minutes	24 hours	90°/ 32°	9 minutes	24 hours	70°/ 20°	15 minutes	24 hours	<p>NSF Certified to ANSINFSF 61</p> <p>RECOGNIZED WORLDWIDE Fire Tested BS476 4 Hrs FRP</p> <p>International Standard Fire Resistance Performance</p>  <p>2,526 7,016 14,696</p> <p>3/8" x 3-3/8" 5/8" x 5-5/8" 1" x 9"</p>															
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¹Diameter x Embedment in 4000 psi concrete.

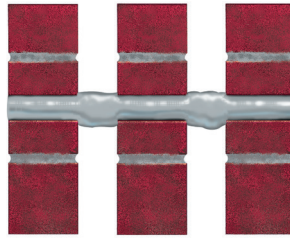
²All loads given in pounds.

³Calculated using the ICCES threaded rod data in uncracked, dry concrete with periodic inspection. Temperature range A.

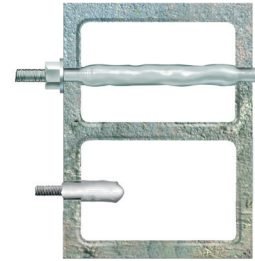
*Red Head A7+ replaced Epon A7 and S7. For information on the retired A7 and S7 adhesives, please visit www.itwredhead.com

Hollow Base Material Applications


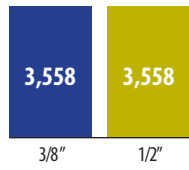

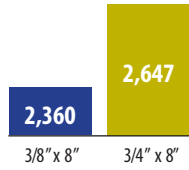

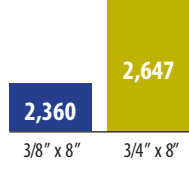

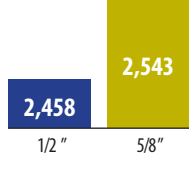
Use the following accessories with the A7+ adhesive anchoring system for all of your hollow base material applications.



Brick Pinning



Fastening to hollow concrete block

SYSTEM ACCESSORIES	KEY FEATURES	ULTIMATE TENSILE ^{1,2} PERFORMANCE (LBS)						
<h2>Umbrella Anchor</h2>  <p>Umbrella Anchor</p> <p>Makes it possible to use adhesive for fastening to the face of hollow block or tile (see page 53)</p>	<ul style="list-style-type: none"> Highest hold in hollow block 1/4", 3/8", or 1/2" rods Fasten to front face of blocks Creates large bearing surface inside block to achieve high loads 	<p>A7+</p>  <table border="1"> <tr> <th>Diameter</th> <th>Ultimate Tensile (LBS)</th> </tr> <tr> <td>3/8"</td> <td>3,558</td> </tr> <tr> <td>1/2"</td> <td>3,558</td> </tr> </table>	Diameter	Ultimate Tensile (LBS)	3/8"	3,558	1/2"	3,558
Diameter	Ultimate Tensile (LBS)							
3/8"	3,558							
1/2"	3,558							
<h2>Nylon Screens</h2>  <p>Makes it possible to use adhesive for fastening to hollow block or brick walls (see page 56)</p>	<ul style="list-style-type: none"> 3/8" to 3/4" diameter sizes 30%-50% lower cost than stainless screens Special design makes screens easier to insert through block or brick Does not get bent or crushed Corrosion resistant 	<p>A7+</p>  <table border="1"> <tr> <th>Size</th> <th>Ultimate Tensile (LBS)</th> </tr> <tr> <td>3/8" x 8"</td> <td>2,360</td> </tr> <tr> <td>3/4" x 8"</td> <td>2,647</td> </tr> </table>	Size	Ultimate Tensile (LBS)	3/8" x 8"	2,360	3/4" x 8"	2,647
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<h2>Stainless Steel Screens</h2>  <p>Makes it possible to use adhesive for fastening to hollow block or brick walls (see page 56)</p>	<ul style="list-style-type: none"> 1/4" & 3/4" diameter sizes Corrosion resistant Available in 1/4" thicknesses 	<p>A7+</p>  <table border="1"> <tr> <th>Size</th> <th>Ultimate Tensile (LBS)</th> </tr> <tr> <td>3/8" x 8"</td> <td>2,360</td> </tr> <tr> <td>3/4" x 8"</td> <td>2,647</td> </tr> </table>	Size	Ultimate Tensile (LBS)	3/8" x 8"	2,360	3/4" x 8"	2,647
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3/8" x 8"	2,360							
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<h2>Stubby Screens</h2>  <p>Makes it possible to use adhesive for fastening to the face of hollow block or tile (see page 53)</p>	<ul style="list-style-type: none"> 1/4", 3/8", 1/2", 5/8" diameter sizes Fasten to front face of block Anchor remains perpendicular in wall 	<p>A7+</p>  <table border="1"> <tr> <th>Diameter</th> <th>Ultimate Tensile (LBS)</th> </tr> <tr> <td>1/2"</td> <td>2,458</td> </tr> <tr> <td>5/8"</td> <td>2,543</td> </tr> </table>	Diameter	Ultimate Tensile (LBS)	1/2"	2,458	5/8"	2,543
Diameter	Ultimate Tensile (LBS)							
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¹ Testing performed in hollow concrete block.

² Diameter x Embedment.