

DESCRIPTION Ultrabond 1300 Epoxy Gel offers exceptional strength for anchoring and doweling applications in temperatures between 35°F to 110°F. It is a specially formulated non-abrasive epoxy that works extremely well in bulk dispensing pumps.

PROPERTIES Tension Load (3000 psi concrete, 1/2" rod) 14,146 lbs.
Gel Time: 14 minutes @ 75°F
Load Time: 2 hour @ 75°F

COLOR	
Part A	White
Part B	Black
Mixed	Concrete Gray
Mix Ratio	1 : 1

GENERAL USES and APPLICATIONS

- ❖ Doweling applications for rebar and tie bars for full depth concrete pavement repairs
- ❖ Anchoring and bracing for short term tensile load where dynamic, vibratory, wind or intermittent loads exist
- ❖ Use in concrete, grout filled block and unreinforced masonry
- ❖ Bulk dispensing flowability for efficient application

ADVANTAGES and FEATURES

- ❖ Non-sag, high modulus, high strength structural epoxy gel system.
- ❖ 100% solids, solvent free system with zero VOC content.

PACKAGING

Cartridge or Bulk	Part #'s
9 oz. cartridge	A9-1300HN
22 oz. cartridge	A22-1300N
53 oz cartridge	A53-1300
1 gallon kit (102 fl. oz.)	BUG-1300
2 gallon kit	B2G-1300
10 gallon kit	B10GM-1300S

AVAILABILITY ATC Ultrabond products are available through select distributors who can provide you with all your construction needs. Please contact ATC at (800) 892-1880 for a distributor near you.

WEBSITE www.ATC.ws

SHELF LIFE / STORAGE 24 month shelf life when stored in unopened containers in dry conditions.
Store between 40°F and 95°F.

Independent ASTM C881-10 Technical Data

Properties		ASTM	38°F	50°F	75°F
Gel time 60 gram sample	minutes	C881	34	32	14
Working Time	minutes		40	35	20
Load Time--when load can be applied	hours		24	19	2
Pot Life (bulk only) 1 gallon			---	---	---
Compressive Yield Strength - psi	7 day	D695	13,100	10,190	11,850
Compressive Modulus - psi		D695	324,000	232,000	271,000
Tensile Strength psi		D638	---	---	1,390
Tensile Elongation - %		D638	---	---	2.5
Bond Strength - psi	2 day	C882	2,380	2,820	3,410
Bond Strength - psi	14 day	C882	2,890	3,730	3,470
Consistency or Viscosity		C881	Non-sag		
Heat Deflection Temp		D648	133		
Water Absorption - %		D570	0.24		
Linear Coefficient of Shrinkage %		C531	0.0003		
Volatile Organic Compound (VOC)			0 g/l		

STANDARDS and APPROVALS

**ASTM C881-10 Type I, II, IV & V
Grade 3 Class A, B & C
AASHTO M235**

D.O.T Approvals: Alabama*Arizona*Arkansas
Colorado*Connecticut* Georgia* Indiana*Iowa
Kansas* Kentucky* Louisiana* Mississippi
Missouri* Nebraska* Nevada* New Jersey
New Mexico* New York* North Carolina* Ohio
Pennsylvania*Tennessee*Texas*Utah* Virginia

Canada, Ontario MTO-DSM

LEED: Certificate is available upon request

Manufactured In The U.S.A.



by Adhesives Technology Corp.

APPLICATION TEMPERATURE Substrate and ambient air temperature between 35°F and 110°F

CONDITION PRODUCT When the work environment or substrate falls below 70°F, condition the product to 70-75°F prior to use. Cold product may become too thick, product that is too warm will react much faster than normal.

COVERAGE See MPII, Manufacturer's Printed Installation Instructions for Estimating/Usage Guide for anchoring/doweling.

CHEMICAL RESISTANCE A Chemical Resistance Chart for our Ultrabond, Miraclebond and Crackbond Epoxy products is available upon request. Contact a Technical Service Representative for details.

LIMITATIONS & WARNINGS

- ❖ Do not thin with solvents, as this will prevent cure
- ❖ Not recommended for overhead applications or long term sustained loads

SPECIFICATION Anchoring adhesive shall be a two component, 1:1 ratio, high viscosity, 100% solids, epoxy system supplied in pre-measured containers. Epoxy must meet the requirements of C881-10 specification for Type I, II, IV, and V, Grade 3 Class A, B & C. Epoxy must have a minimum heat deflection temperature of 133°F per ASTM D648 and have a minimum ultimate tension load value of 14,146 lbs. when tested using ½" diameter threaded rod in a 9/16" diameter hole at a minimum embedment depth of 4 1/2" in 3000 psi normal weight concrete. Shelf life must be a minimum of 24 months. The Adhesive shall be Ultrabond 1300 manufactured by Adhesives Technology Corp., Pompano Beach, Florida.

MPII—MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS For complete Installation Instructions and Technical data for Ultrabond 1300 refer to our Website, www.atc.ws or call ATC for more information at 1-800-892-1880.

HOLE PREPARATION for Anchoring and Doweling New concrete must be a minimum of 28 days old. Holes must be drilled to proper depth and diameter and brushed as per installation instructions and blown free of all dirt and dust. All contaminants such as oil, wax or grease must be removed from holes. Surface may be damp without the presence of standing water.

CLEAN UP Clean tools and equipment with solvent such as xylene, toluene, MEK or WD40.
Do not allow epoxy to harden on equipment.

SAFETY Please refer to the MSDS for Ultrabond 1300 published on our Website, www.atc.ws or call ATC for more information at 1-800-892-1880.

WARRANTY Adhesives Technology Corporation (ATC) warrants to the Buyer that this product is in good quality and conforms to the manufacturer's specifications in force on the date of manufacture and when used in accordance with the Installation Instructions and when stored as directed in the technical literature. Manufacturer cannot warrant or guarantee any particular method of use, performance or application under any particular condition and Buyer is responsible for determining the suitability of intended purpose and assumes all risks therein. ATC shall not be liable for any injury, loss, cost of labor or consequential damages either directly, indirectly or incidentally, arising out of the use or misuse of any product sold by ATC or another distributor. If the product is proven to be in nonconformance, the Buyers sole remedy shall be a refund of the purchase price or replacement of product.

Manufactured In The U.S.A.



by Adhesives Technology Corp.

450 East Copans Road ■ Pompano Beach, FL 33064 ■ (800) 892-1880 ■ Fax (800) 362-3320 ■ www.atc.ws

ULTRABOND 1300 Cure Schedule				
Temperature		Working Time	Load Time (Cure Time)	Final Cure Time
°C	°F			
46.0° C	115° F	4.5 min	1.5 hrs	3 hrs
35.0° C	95° F	7 min	2 hrs	20 hrs
29.4° C	85° F	10 min	2 hrs	24 hrs
23.8° C	75° F	20 min	2 hrs	32 hrs
18.3° C	65° F	25 min	6 hrs	42 hrs
12.8° C	55° F	30 min	14 hrs	56 hrs
4.4° C	40° F	40 min	24 hrs	72 hrs

The chart above indicates the temperature versus Load Time (Bolt up time) for Ultrabond 1300.

***Load time** is the amount of time required before applying allowable load (bolt-up time). Load-time and final cure time is based on the lowest temperature experienced during the cure schedule. Therefore, if the lowest temperature experienced by the anchor is 40°F, it will take 24 hours until anchor can be bolted up.

***Working Time** is the elapsed time in which the adhesive in the nozzle begins to increase in viscosity from a flowable material to a non-movable semi-solid.

TENSION LOADS FOR THREADED RODS								
Threaded Rod Diameter (in.)	Hole Diameter (in.)	Minimum Embedment Depth (in.)	f'c = 3000 psi		f'c = 5000 psi		f'c = 7000 psi	
			Ultimate Tension Load (lbs)	Allowable Tension Load (lbs)	Ultimate Tension Load (lbs)	Allowable Tension Load (lbs)	Ultimate Tension Load (lbs)	Allowable Tension Load (lbs)
3/8	7/16	3-3/8	9,336	2,334	10,124	2,531	10,936	2,734
1/2	9/16	4-1/2	14,146	3,537	14,512	3,628	18,400	4,600
5/8	3/4	5-5/8	19,600	4,900	20,688	5,172	29,288	7,322
3/4	7/8	6-3/4	25,052	6,263	26,864	6,716	34,764	8,961
7/8	1	7-7/8	33,376	8,344	34,328	8,582	39,524	9,881
1	1-1/8	9	41,696	10,424	41,792	10,448	52,144	13,036

Safety Factor "Allowable" equals 25% of Ultimate Load, 32% for steel

Shear LOADS FOR THREADED RODS								
Threaded Rod Diameter (in.)	Hole Diameter (in.)	Minimum Embedment Depth (in.)	f'c = 3000 psi		f'c = 5000 psi		f'c = 7000 psi	
			Ultimate Shear Load (lbs)	Allowable Shear Load (lbs)	Ultimate Shear Load (lbs)	Allowable Shear Load (lbs)	Ultimate Shear Load (lbs)	Allowable Shear Load (lbs)
					7,036	1,759	7,144	1,786
1/2	9/16	4-1/2	8,316	2,079	10,380	2,595	13,096	3,274
5/8	3/4	5-5/8	15,328	3,832	18,056	4,514	19,052	4,763
3/4	7/8	6-3/4	22,336	5,584	25,732	6,433	26,072	6,518
7/8	1	7-7/8	29,364	7,341	31,408	7,852	33,092	8,273
1	1-1/8	9	36,396	9,099	37,084	9,271	40,952	10,238

Safety Factor "Allowable" equals 25% of Ultimate Load, 32% for steel

Manufactured In The U.S.A.



by Adhesives Technology Corp.

450 East Copans Road ■ Pompano Beach, FL 33064 ■ (800) 892-1880 ■ Fax (800) 362-3320 ■ www.atc.ws