

DESCRIPTION Ultrabond 2300 is a multipurpose high strength, non-sag epoxy anchoring and bonding adhesive system for temperatures between 60°F and 110°F

PROPERTIES Tension Load (3000 psi concrete, 1/2" rod): 14,500
Gel Time: 28 minutes @ 75°F
Load Time: 10 hours @ 75°F

COLOR	
Part A	Beige
Part B	Dark Gray
Mixed	Concrete Gray
Mix Ratio	1 : 1

GENERAL USES and APPLICATIONS

- ❖ Bonding fresh concrete to hardened concrete or hardened concrete to hardened concrete
- ❖ Anchoring threaded rod fasteners and rebar doweling where dynamic, vibratory or intermittent loads exist
- ❖ Also used in hollow block, brick, clay and stone.
- ❖ Moisture insensitive and may be used in damp holes

ADVANTAGES and FEATURES Ultrabond 2300 is a non-sag, high strength, high modulus structural epoxy gel system. It is 100% solids, moisture insensitive product perfect for when long working time is required. A solvent free system means low VOC content.

PACKAGING

Cartridge or Bulk	Part #'s
22 oz. cartridge	A22-2300
53 oz cartridge	A53-2300
1 gallon kit (102 fl. oz.)	BUG-2300
2 gallon kit	B2G-2300

AVAILABILITY ATC Ultrabond epoxy is 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 Technical Data					
Properties		ASTM	65°F	75°F	95°F
Gel time 60 gram sample	minutes	C881	---	28	---
Working Time	minutes		---	40	---
Load Time--when load can be applied	hours		---	10	---
Pot Life (bulk only) 1 gallon	minutes		---	30	---
Compressive Yield Strength - psi	7 day	D695	---	10,220	---
Compressive Modulus - psi		D695	---	213,000	---
Tensile Strength psi		D638	---	3,680	---
Tensile Elongation - %		D638	---	4.6	---
Bond Strength - psi	2 day	C882	---	3,600	---
Bond Strength - psi	14 day	C882	---	4,060	---
Consistency or Viscosity		C881	Non-sag (145,000 cp)		
Heat Deflection Temp		D648	121		
Water Absorption - %		D570	0.41		
Linear Coefficient of Shrinkage %		D2566	0.002		
Volatile Organic Compound (VOC)			5.8 g/l		

STANDARDS and APPROVALS

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

D.O.T Approvals: Arizona•Colorado•Florida
Indiana•Iowa•Kentucky•Louisiana•Nebraska
New Mexico•Tennessee•Texas•Utah

LEED: Certificate is available upon request

Manufactured In The U.S.A.



by Adhesives Technology Corp.

APPLICATION TEMPERATURE Substrate and ambient air temperature between 60°F and 110°F

CONDITION PRODUCT Product should be conditioned to at least 75°F prior to application

COVERAGE A 22 oz cartridge will fill 72 holes (1/2" rod x 9/16" hole x 4-1/2" embedment)
See Installation Instructions for Estimating and Usage Guide for anchoring/doweling.

CHEMICAL RESISTANCE A Chemical Resistance Chart for our Ultrabond, Miraclebond and Crackbond 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 at elevated temperatures

SPECIFICATION Adhesive shall be a two component, 1:1 ratio, high viscosity, 100% solids, epoxy system supplied in pre-measured containers. The adhesive material must have a minimum gel-time of 25 minutes, a minimum compressive strength of 10,200 psi (at 75°F.) and a minimum load strength of 14,500 lbs (1/2-inch A193-B7 threaded rod; embedded 4-1/2-inches into 3,000 psi concrete). Epoxy must have a minimum heat deflection temperature of 120°F per ASTM D648. Adhesive shall be Ultrabond 2300 manufactured by ATC, Pompano Beach, Florida.

INSTALLATION INSTRUCTIONS For complete Installation Instructions for Ultrabond 2300 refer to our Website, www.atc.ws or call ATC for more information at 1-800-892-1880.

SURFACE PREPARATION All surfaces must be sound and clean before epoxy application. All dust, dirt, oil, wax, grease or any other contaminant must be removed with solvent or other means. Unsound and loose concrete must also be removed by grinding or sanding. Smooth surface must be roughened with sand paper or wire brush before application. Use pressurized air to blow away dust and dirt and evaporate cleaning solvents.

CLEAN UP Clean tools and equipment with an approved solvent before hardening.

SAFETY Please refer to the MSDS for Ultrabond 2300 published on our Website, www.atc.ws

WARRANTY All warranties of the product listed herein, in the corresponding ATC catalog, and in any other current literature, expressed or implied, including warranties of merchantability and fitness for a particular purpose are specifically and expressly excluded with the following exception: At its sole discretion, ATC will repair or replace any product which it considers to be defective in material or workmanship, excepting normal wear and tear within sixty (60) days from the date of purchase from ATC. ATC shall not be liable for any injury, loss or damage, direct, indirect, incidental or consequential or arising out of misuse of, negligence, accident or inability to use any ATC product.

Ordering Information for Ultrabond 2300				
Package Size	22 oz	53 oz	BUG	B2G
Part #:	A22-2300	A53-2300	BUG-2300	B2G-2300
Manual Dispensing Tool	TM22HD	N/A	N/A	N/A
Pneumatic Dispensing Tool	TA22HD-N	TA53HD-A	N/A	N/A
Case Qty	12	6	1	1
Pallet Qty	768	216	75 kits	75 kits
Recommended Mixer Nozzle	T3834C	T3412CT	N/A	N/A

* Contact Adhesives Technology for recommended pump manufacturers
For large projects with anchor holes greater than 1-inch in diameter our T1C Hi-Flow mixer nozzle may be used.

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ULTRABOND 2300 Cure Schedule			
Temperature		Working Time	Load Time
°C	°F		
35.0° C	95° F.	15 min	9 hrs
29.4° C	85° F.	25 min	10 hrs
23.8° C	75° F.	40 min	10 hrs
18.3° C	65° F.	45 min	24 hrs

The chart above indicates the temperature versus Load Time (Bolt up time) for Ultrabond 2300.

*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.

TECHNICAL DATA

TENSION LOADS FOR THREADED RODS – Safety Factor “Allowable” equals 25% of Ultimate Load, 32% for steel

Threaded Rod Diameter (in.)	Hole Diameter (in.)	Minimum Embedment Depth (in.)	f'c = 3000 psi		f'c = 5000 psi	
			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	9,728	2,432
1/2	9/16	4 1/2	14,500	3,652	14,712	3,678
5/8	3/4	5 5/8	21,804	5,451	22,460	5,615
3/4	7/8	6 3/4	29,108	7,277	30,208	7,552
7/8	1	7 7/8	37,768	9,442	40,228	10,057
1	1 1/8	9	46,432	11,608	50,252	12,563

SHEAR LOADS FOR THREADED RODS – Safety Factor “Allowable” equals 25% of Ultimate Load, 32% for steel

Threaded Rod Diameter (in.)	Hole Diameter (in.)	Minimum Embedment Depth (in.)	f'c = 3000 psi		f'c = 5000 psi	
			Ultimate Tension Load (lbs.)	Allowable Tension Load (lbs.)	Ultimate Tension Load (lbs.)	Allowable Tension Load (lbs.)
3/8	7/16	3 3/8	7,216	1,804	6,852	1,713
1/2	9/16	4 1/2	9,692	2,423	10,840	2,710
5/8	3/4	5 5/8	15,024	3,756	15,220	3,805
3/4	7/8	6 3/4	20,320	5,080	19,600	4,900
7/8	1	7 7/8	30,916	7,729	26,984	6,746
1	1 1/8	9	41,468	10,367	34,364	8,591

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