

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

- ❖ Anchoring and bracing of threaded rod or rebar where dynamic vibratory or intermittent loads exist
- ❖ Short term tensile load anchoring including wind and seismic forces
- ❖ 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 % | | D2566 | 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

Ministry of Ontario, Canada (MTO) DSM Listing

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.

Ordering Information for Ultrabond 1300

| Package Size | 9 oz | 22 oz | 53 oz | BUG | B2G | B10G |
|---------------------------|-----------|-----------|----------|----------|----------|-------------|
| Part #: | A9-1300HN | A22-1300N | A53-1300 | BUG-1300 | B2G-1300 | B10GM-1300S |
| Manual Dispensing Tool | TM9HD | TM22HD | N/A | N/A | N/A | N/A |
| Pneumatic Dispensing Tool | N/A | TA22HD-N | TA53HD-A | N/A | N/A | N/A |
| Case Qty | 12 | 12 | 6 | 1 | 1 | 1 |
| Pallet Qty | 1,116 | 576 | 216 | 75 kits | 75 kits | 12 kits |
| Recommended Mixer Nozzle | T12 | T3438C | T3412CT | N/A | N/A | T3412CT |

* 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.

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) |
| 3/8 | 7/16 | 3-3/8 | 6,940 | 1,735 | 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

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