

## TECHNICAL DATA SHEET

### DESCRIPTION

Pro-Poxy 300 Fast is two component, moisture tolerant, 100% solids, high modulus epoxy gel adhesive that meets ASTM C-881 and AASHTO M-235.

### USE

Pro-Poxy 300 Fast is ideal for anchoring bolts, dowels, and reinforcing steel in concrete. It is also ideal for vertical and horizontal structural bonding and patching. Pro-Poxy 300 Fast may also be used to seal cracks and set injection ports prior to injection grouting.

### FEATURES

- High-strength structural adhesive
- Ideal for anchoring dowels, bolts, reinforcing steel and threaded rod
- Easy dispensing and no mixing with pre-filled cartridges
- Moisture tolerant
- Fast-setting
- Non-sag gel consistency
- Excellent adhesion
- Certified to conform to NSF/ANSI Standard 61 by WQA



### PROPERTIES

ASTM C-881/ AASHTO M-235, Types I, II, IV, V Grade 3, Classes B & C\*

\* Except for minimum gel time due to fast set

Mix ratio: 1 part A to 1 part B by volume

Mixed color Gray

Consistency Non-sag gel

Gel Time 60 gm mass  
6-8 minutes at 75°F (24°C)

Initial Cure 2 hours

Compressive Strength ASTM D-695:

4,000 psi (27.6 MPa) at 24 hours  
6,300 psi (43.4 MPa) at 48 hours  
8,300 psi (57.2 MPa) at 72 hours  
11,200 psi (77.2 MPa) at 7 days

Concrete Bond Strength ASTM C-882:

2,200 psi at 2 days (15.2 MPa)  
3,400 psi (23.4 MPa) at 14 days

Compressive Modulus ASTM D-695

316,100 psi, (2,180 MPa)

Water Absorption ASTM D-570 - 0.35%

Tensile Strength ASTM D-638

7 days 8,000 psi (55.1 MPa)

Linear Coefficient of Shrinkage D-2566: 0.002

### Tension Loads

(Pull-Out Tests with Threaded Rod)

Rod Diameter	Hole Diameter	Hole Depth	4000 psi (27 MPa)	5500 psi (38 MPa)
3/8" (1 cm)	7/16" (1.1 cm)	3-3/8" (8.6 cm)	8250 lbs (3742 kg)	9200 (4173)
3/8" (1 cm)	7/16" (1.1 cm)	5-5/8" (14.3 cm)	11360 lbs. (5153 kg)	11740 (5325)
1/2" (1.3 cm)	9/16" (1.4 cm)	4 1/2" (11.4 cm)	11,730 lbs. (5320 kg)	12920 (5860)
1/2" (1.3 cm)	9/16" (1.4 cm)	7 1/2" (19.0 cm)	17,010 lbs. (7716 kg)	19360 (8782)
5/8" (1.6 cm)	3/4" (1.9 cm)	5-5/8" (14.3 cm)	18,871 lbs. (8560 kg)	22940 (10405)
5/8" (1.6 cm)	3/4" (1.9 cm)	9-3/8" (23.8 cm)	26,260 lbs. (11911 kg)	30960 (14043)
3/4" (1.9 cm)	7/8" (2.2 cm)	6 3/4" (17.1 cm)	25,870 lbs. (11734 kg)	29360 (13317)
3/4" (1.9 cm)	7/8" (2.2 cm)	11 1/4" (28.6 cm)	34,340 lbs. (15576 kg)	38360 (174600)

### VOC

Pro-Poxy 300 Fast has a VOC content of 0 g/L . Compliant with all Canadian and U.S. VOC regulations including Federal EPA, OTC, LADCO, SCAQMD & CARB

### Estimating Guide

Rebar Size	Hole Diameter	Hole Depth	Anchors Per. 22 fl.oz. Cart.
3/8"	7/16"	3-3/8"	112
3/8"	7/16"	5-5/8"	71
1/2"	9/16"	4-1/2"	61
1/2"	9/16"	7-1/2"	36
5/8"	3/4"	5-5/8"	26
5/8"	3/4"	9-3/8"	15
3/4"	7/8"	6-3/4"	17
3/4"	7/8"	11-1/4"	10
1"	1-1/8"	9"	9
1-1/4"	1-3/8"	11-1/4"	5

### Packaging

PRODUCT CODE	PACKAGE	SIZE	
		Gallons	Liters
140187	Uni-cartridge	0.07	250 ml
140204	Cartridge	0.16	600 ml
140228	Cartridge	0.40	1500 ml
140172	Unit	1	3.79
140177	Unit	2	7.57
140192	Unit	10	37.85

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**STORAGE**

The material should be stored at 40° -95°F (5°-35°C). Shelf life of properly stored, unopened containers is 24 months.

**APPLICATION**

**Surface Preparation:**

Surface to be bonded must be clean and sound. Remove dust, dirt, grease, laitance, curing compounds and other foreign matter by sandblasting, mechanical abrasion or hydro blasting. For drilled holes, clean with a nylon bristle brush. Remove all water and dust with clean compressed air prior to installation. Air and surface temperature must be 40°F (5°C) or above.

**Mixing:**

Condition material to 65° - 85°F (18° - 29°C) before using. Premix each component, then mix equal volumes of Part A and Part B for 3 minutes with a low speed drill, a jiffy mixer or paddle. Mix only what can be used during the pot life.

**Placement:**

For use as a structural adhesive, apply the material neat and work into the substrate. The glue line should not exceed 1/8" (0.3cm). When used as a chemical anchor, the annular space around the bolt in the hole should not exceed 1/8" (0.3cm). When dispensing the epoxy using the cartridges, first cut the static mixing nozzle mixer tip to the preferred opening for the job. Next, remove the "D" cartridge plugs from the extrusion throat end of the cartridge. Place the retaining nut over the small end of the static mixing tube. Securely hand tighten the retaining nut onto the cartridge making sure that there is no slack in the nut, otherwise leaking will occur. Place the assembled cartridge into either a manual or pneumatic gun. Pneumatic guns are recommended for large jobs where high production is required. Start installation by extruding material into a waste pail until a smooth uniform color without streaking has been achieved. Discard the first material that is extruded from the end of the nozzle until the uniform streak-free color is achieved. Off color or streaking will result in an off ratio mix, and the Pro-Poxy™ 300 Fast will not set properly or develop maximum strength.

Dispense the Pro-Poxy™ 300 Fast using constant and even pressure. Start dispensing by placing the static mixing nozzle to the bottom of the hole pulling the mixing nozzle out slowly filling the hole on the way out. Fill to approximately 1/2 full. Place dowel, rod, rebar, pin, etc. into the back of the hole, rotating the rod slowly, and displacing epoxy as it is inserted.

Whenever the dispensing is interrupted or otherwise stopped for more than 15 minutes, recheck the extruded Pro-Poxy™ 300 Fast for uniform streak-free color before use. Always establish uniform non-streak color before use to verify proper mixing.

**CLEAN UP**

Tools and Equipment: Clean before the epoxy sets. Use xylene or Unitex Citrus Cleaner.

**Cure Time**

Minimum cure time is the minimum time required before the design or allowable load may be applied

Minimum substrate temp (°F)	Gel (working) time minutes	Minimum cure time (hours)
50	30	24
60	18	12
70	9	8
80	7	6
90	5	4
100	3	2

**LIMITATIONS**

**FOR PROFESSIONAL USE ONLY**

Per NTSB Safety Recommendations, the use of adhesive anchors is prohibited in sustained overhead load anchoring applications. This product is tested against and certified to NSF/ANSI 61 to a maximum surface area to volume ratio of 10.0 sq. cm/L.

Always test a small amount to insure that the product is mixed thoroughly and that the material will harden properly before proceeding

Do not thin with solvents

Surface and ambient temperature must be 40°F (5°C) or above

For applications with constant high temperature (above 120°F, 49°C), contact Dayton Superior

Do not expose stored product to cold or freezing temperature (below 35°F, 2°C) for any length of time

Note: High temperature will accelerate the setting time and cool temperature will slow the setting time. As a general rule, the gel time of the epoxy will be cut in half for each 10° to 15° increase in temperature above 75°F and the gel time will double for each 10° to 15° drop below 75°F (24°C). Minimum age of concrete must be 21-28 days from date of placement depending on curing and drying conditions.

**PRECAUTIONS**

**READ SDS PRIOR TO USING PRODUCT**

- Component A – Irritant
- Component B – Corrosive
- Product is a strong sensitizer
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)
- Keep out of the reach of children
- Do not take internally

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- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements
- Cured epoxy resins are innocuous

## MANUFACTURER

Dayton Superior Corporation  
1125 Byers Road  
Miamisburg, OH 45342  
Customer Service: 888-977-9600  
Technical Services: 877-266-7732  
Website: [www.daytonsuperior.com](http://www.daytonsuperior.com)

## WARRANTY

Dayton Superior Corporation ("Dayton") warrants for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Dayton, the product is free of manufacturing defects and conforms to Dayton's product properties in force on the date of acceptance by Dayton of the order. Dayton shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Dayton's instructions, especially surface preparation and installation, in force on the date of acceptance by Dayton of the order. The purchaser must examine the product when received and promptly notify Dayton in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Dayton, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only a Dayton officer is authorized to modify this warranty. The information in this data sheet supersedes all other sales information received by the customer during the sales process. **THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.**

Dayton shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, its obligations under any contract for sale of product, even if Dayton could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this contract, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.