

PRO-POXY 300 PRO-POXY 300 FAST

Non-sag, injectable anchoring gel



Compliances

Pro-Poxy 300- ASTM-C-881: Types I, II, IV, & V; Grade 3: Classes B & C

Pro-Poxy 300 Fast- ASTM-C-881: Types I, II*, IV, V*; Grade 3: Classes A, B, & C

V.O.C. Compliant

Passed ICBO-ES AC58 (Sec. 5.3.3) ASTM E 1512 (Sec. 7.1 & 7.5) Elevated Temp Creep Test

Meets USDA specifications for use in food-processing areas

*Except gel time

3-Part Spec

[Download text](#) that can be edited into a specifications document.

Description

Both PRO-POXY 300 and 300 FAST are high-strength, two-component epoxy adhesive anchoring gels.

They both meet USDA specifications for use in food processing areas.

Usage

- Chemical anchoring for bolts, dowels and pins
- Cap sealing and port setting
- Pressure-injection of cracks in structural concrete
- Bonding irregular surfaces

Appearance

Component A: White

Component B: Gray

Shelf Life: 2 years in original unopened container

Storage Conditions: Store at 40-95°F (5-35°C).

Precondition cartridges to over 73°F ±2° (23°C)

Cold weather (below 70°F/21°C): Precondition cartridges slowly to 80-90°F/27-32°C for easier gunning.

Gel Time (60 g. mass): 35 min. at 73°F ±2° (23°C) for PRO-POXY 300

8 min. at 73°F ±2° (23°C) for PRO-POXY 300 FAST

Packaging

22 oz./600 ml cartridges

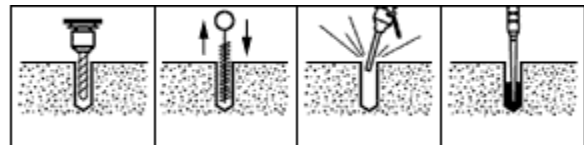
Features

- Permitted for use in wet or damp holes
- Freeze-thaw resistant, permitted in severe weathering locations
- Suitable for seismic conditions
- Allowed at close edge distances, shallow embedments
- Low odor
- For both solid and hollow-base materials

Application

TO ANCHOR BOLTS, DOWELS & PINS

Refer to tables below for annular space, embedment depth and edge distances.



Step 1.
Drill holes to proper diameter and length.

Step 2.
Clean holes with a nylon brush.

Step 3.
Blow concrete dust from hole with oil-free compressed air from back forward.

Step 4.
After uniform color is achieved, static mixer should be placed in back of hole. Start extruding epoxy while pulling static

1 gal./3.8 L units
2 gal./7.6 L units
10 gal./37.9 L units
110 gal./416.4 L units

mixer out,
filling hole
half full.
Rotate the
bolt slightly
as it is
inserted to
the back of
the hole.

Coverage

22 oz./600 ml cartridge yields 37 cu. in./600 cu. cm
1 gal./3.8 L of mixed epoxy yields 231 cu. in./3,746 cu. cm

Directions

CARTRIDGES: PRO-POXY 300 and 300 FAST may be easily dispensed from cartridges, eliminating mixing and measuring. Remove D plug from small end of cartridge. Slide retaining nut over static mixer. Secure static mixer to cartridge by screwing retaining nut onto cartridge. For easier gunning, the static mixer tip may be cut off to the third notch. Place assembled cartridge into approved pneumatic or hand gun. Extrude epoxy until a uniform gray color is achieved. Do not use epoxy with color streaks. Dispense under a constant uniform pressure. If dispensing is altered, re-establish a uniform gray color before continuing. When using a hand gun, release pressure from gun by pressing thumb button at every pause in dispensing. Otherwise, re-establish uniform gray color before continuing.

BULK PACKAGED COMPONENTS

Automatic Dispensing Machines: Only use UNITEX approved positive displacement dispensing machines.

Hand Mixing: Premeasure equal parts by volume of component A and component B in two separate containers. Use a third container to mix the two components together. Do not use one tapered container such as a paper cup, filling it half full of A and half full of B. The correct ratio (1:1) cannot be achieved due to tapered feature of cup. Thoroughly mix for 3 minutes, scraping sides of container until uniform grey color is achieved. Mix only the amount of epoxy that can be used within its gel time. Spread mixed epoxy out thin on a hawk to extend gel time. If you pile it up, the gel time will be shortened due to the greater mass and exotherm.

Limitations

- Minimum substrate temperature is 40°F/5°C
- Do not thin. Solvents will prevent proper cure.
- Use dried aggregate only.
- Minimum age of concrete must be 3-7 days, depending on curing and drying conditions.
- PRO-POXY 300 and 300 FAST are vapor barriers when cured.
- Do not allow mixed epoxy to reside in static mixing head or mixer for more than 5 minutes or gelation and blockage may result.

First Aid

EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.

RESPIRATORY CONTACT: Remove person to fresh air.

SKIN CONTACT: Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant into the skin. Wash skin thoroughly with soap and water.

CURED EPOXY RESINS ARE INNOCUOUS.

TO SET PORTS & CAPSEAL CRACKS: Select PRO-POXY 300 or 300 FAST according to the desired gel time. PRO-POXY 300 provides longer working time. PRO-POXY 300 FAST should be selected for cooler weather applications and when faster setup of capseal is desired. Dab a small amount of epoxy to the back of a port and carefully center port over the crack. A centering nail may be helpful. Do not apply so much epoxy to back of port that it could close off the hole. After setting port, carefully butter the shoulder of the port and extend epoxy to 1/2 in./1.28 cm on either side of the crack. Continue placement of epoxy by buttering crack between ports. To avoid leaks under pressure, the epoxy should be applied to approx. 1/4 in./.64 cm. thick. Do not place epoxy once it starts curing or getting hot or sticky, as this will compromise capseal and cause leaking. Once epoxy is placed, it should not be disturbed during the curing process. Cure time depends on air temperature and mass of epoxy. Normally a minimum of 2 hrs. is necessary for PRO-POXY 300 FAST and 4-6 hrs. for PRO-POXY 300 to fully cure at 73°F ±2°/23°C. Capseal must be fully cured prior to injection repair of crack.

TO BOND IRREGULAR SURFACES: Apply the mixed PRO-POXY 300 or 300 FAST to the prepared substrates. Work into the substrate for positive adhesion. Secure or clamp the bonded surfaces firmly into place until the epoxy has cured. Glue line should not exceed 1/8 in./.32 cm.

Cleanup

EQUIPMENT: Uncured material can be removed with Unitex CITRI-CLEAN or other approved solvent. Cured material can only be removed mechanically.

MATERIAL: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

Cautions

- Component A: Irritant
- Component B: Corrosive
- Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended.
- Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate.
- Avoid breathing vapors.
- Avoid skin contact.

Allowable Anchor Spacing and Edge Distance *

		Full Anchor Capacity Critical Distance (Ccr)	Reduced Anchor Capacity Distance (Cmin)	Reduction Factor
SPACING BETWEEN ANCHORS		24 D	8 D	0.90
EDGE	TENSION LOADS	12 D	See following chart	See following chart
DISTANCE:	SHEAR LOADS – THREADED ROD	12 D	4 D	0.21
	SHEAR LOADS – SMOOTH DOWELS	12 D	4 D	0.21
	SHEAR LOADS – REBAR	16 D	4 D	0.15

Allowable Shear Values for Threaded Rod in 2000 psi Concrete *

Anchor Diameter (inches)	Bit Diameter (inches)	Embedment (inches)	Allowable Steel Strength (lbs)		
			A36/A307	A193 B7	300 Series Stainless
3/8	7/16	3-3/8	1080	2345	1870
1/2	9/16	4-1/2	1930	4170	3330
5/8	3/4	5-5/8	3030	6520	5220
3/4	7/8	6-3/4	4360	9390	6390
7/8	1	7-7/8	5930	12780	8680
1	1-1/8	9	7740	16690	11340
1-1/4	1-3/8	11-1/4	12100	26070	17730

Cure Times for Adhesive Anchors *

Minimum Substrate Temp.	Cure Time		Minimum Cure Time	
	Pro-Poxy 300	Pro-Poxy 300 Fast	Pro-Poxy 300	Pro-Poxy 300 Fast
40°F (5°C)	F	48 hrs	F	24 hrs
65°F (18°C)	48 hrs	36 hrs	24 hrs	8 hrs
70°F (21°C)	36 hrs	24 hrs	12 hrs	2.5 hrs
80°F (27°C)	24 hrs	12 hrs	6 hrs	2 hrs
100°F (38°C)	12 hrs	6 hrs	4 hrs	1 hrs

* 1. F indicates PRO-POXY 300 FAST is recommended.

2. Cure Time is time required before epoxy reaches ultimate strength. Minimum Cure Time is minimum time required before the design or allowable load may be applied.

3. Anchors are to be undisturbed during the minimum cure time.

Edge Distance for Tension Values for Anchors in Concrete *

Stud Size (inches)	Minimum Edge Distance (C min)	Reduction Factor
3/8	1-1/2	0.70
1/2	1-3/4	0.66
5/8	1-3/4	0.70
3/4	1-3/4	0.70
7/8	3-1/2	0.70
1	4	0.70
1-1/4	5	0.70

* 1. The listed values are the minimum distances required to obtain the load values in the tables above. D = anchor diameter. When adjacent anchors are different sizes or embedments, use the largest value for D.

2. The listed values are the minimum distances at which the anchor can be installed when load values are adjusted in accordance with reduction factor.

3. Load values in the table are multiplied by the reduction factor when anchors are installed at the minimum spacing listed. Use linear interpolation for spacing between critical and minimum distances. Multiple reduction factors for more than one spacing or edge distance are calculated separately and multiplied.

Shear and Tension Values for Reinforcing Steel *

Anchor Diameter (inches)	Bit Diameter (inches)	Embedment (inches)	Tension Ultimate Bond Strength (lbs)			Allowable Shear Strength	
			Concrete Strength (f'c)			Tension or Shear (lbs)	
			2500 psi	4000 psi	5500 psi	Grade 40	Grade 60
#3	1/2	3-3/8	7080	9050	11020	2200	2640
#4	5/8	4-1/2	12300	14730	17160	4000	4800
#5	3/4	5-5/8	16000	18810	21620	6200	7440
#6	1	6-3/4	39035			8800	10560
#7	1-1/8	7-7/8	36740			12000	14400
#8	1-1/4	9	42670			15600	18720

Ultimate Tension Values for Threaded Rod in Concrete *

Anchor Dia. (inches)	Bit Dia. (inches)	Embedment (inches)	Ultimate Bond Strength in Concrete (f' c)				Allowable Steel Strength (lbs)		
			2500 psi	3000 psi	4000 psi	5500 psi	A36/A307	A193 B7	300 Series Stainless
3/8	7/16	1-11/16		5450			2100	4550	3630
3/8	7/16	3-3/8	7300		8250	9200	2110	4550	3630
3/8	9/16	3-3/8	9560				2110	4550	3630
3/8	7/16	5-5/8	10980		11360	11740	2110	4550	3630
1/2	9/16	2-1/4		7495			3750	8100	6470
1/2	9/16	4-1/2	10540		11730	12920	3750	8100	6470
1/2	11/16	4-1/2	14640				3750	8100	6470
1/2	9/16	7-1/2	14660		17010	19360	3750	8100	6470
5/8	3/4	2-13/16		13665			5870	12655	10130
5/8	3/4	5-5/8	14800		18870	22940	5870	12655	10130
5/8	7/8	5-5/8	23340				5870	12655	10130
5/8	3/4	9-3/8	21560		26260	30960	5870	12655	10130
3/4	7/8	3-3/8		17825			8460	18220	12400
3/4	7/8	6-3/4	22380		25870	29360	8460	18220	12400
3/4	1	6-3/4	29850				8460	18220	12400
3/4	7/8	11-1/4	30320		34340	38360	8460	18220	12400
7/8	1	3-15/16		21390			11500	24800	16860
7/8	1	7-7/8	43280				11500	24800	16860
1	1-1/8	4-1/2		27419			15020	32400	22020
1	1-1/8	9	55650				15020	32400	22020
1-1/4	1-3/8	11-1/4	77860				23480	50610	34420

Shear and Tension Values for Smooth Dowels *

Dowel Diameter (inches)	Bit Diameter (inches)	Embedment (inches)	Ultimate Bond Strength (lbs)		Allowable Steel Strength	
			Tension	Shear	Tension	Shear
			3000 psi	2500 psi	3000 psi	2500 psi

1/2	9/16	4-1/2	6040	8560	3750	1930
5/8	3/4	5-5/8	6760	13140	5880	3030
3/4	7/8	6-3/4	12000	18920	8460	4360
7/8	1	7-7/8	14220	25720	11500	5930
1	1-1/8	9	23280	33600	15020	7740

*1. The tabulated shear and tension values are for anchors installed in normal weight concrete having reached the designated ultimate compressive strength at the time of installation. Linear interpolation may be used for concrete strengths between those listed.

2. Spacing and edge distance shall be in accordance with appropriate table.

3. Allowable load must be the lesser of the allowable steel strength and that allowable bond strength. Typically, allowable bond strength is equal to the ultimate bond strength divided by the safety factor of 4.

4. Allowable loads may be increased by 33-1/3% for short term loading due to earthquakes or wind.

5. Pro-Poxy 300 Fast is recognized for installation in water-filled or moist holes, for use in locations subject to severe exterior weathering conditions and for resisting tension and shear loads due to earthquake and wind.

Estimating Guide for Number of Holes per Cartridge*

Rod Size (inches)	Hole Size (inches)	Hole Depth (inches)																		
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Threaded Rod in Concrete:		Number of Holes per Cartridge																		
3/8	7/16	192	128	96	77	64	55	48	43	39	35	32	30	28	26	24	23	22	21	20
1/2	9/16	136	91	68	55	46	39	34	29	28	25	23	21	19	18	17	16	15	15	14
5/8	3/4	70	47	35	28	24	20	18	16	14	13	12	11	10	10	9	9	8	8	7
3/4	7/8	56	37	28	23	19	16	14	13	11	10	10	9	8	8	7	7	7	6	6
7/8	1	47	31	24	19	16	12	12	11	10	9	8	8	7	7	6	6	6	5	5
1	1-1/8	38	26	19	16	13	11	10	9	8	7	7	6	6	5	5	5	5	4	4
1-1/8	1-1/4	34	23	17	14	12	10	9	8	7	7	6	6	5	5	5	4	4	4	4
1-1/4	1-3/8	29	20	15	12	10	9	8	7	6	6	5	5	5	4	4	4	4	3	3
1-1/2	1-5/8	23	16	12	10	8	7	6	5	5	5	4	4	4	3	3	3	3	3	3

Rebar Size (inches)	Hole Size (inches)	Hole Depth (inches)																		
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Rebar in Concrete:		Number of Holes per Cartridge																		
No. 3	1/2	163	109	82	66	55	47	41	37	33	30	28	26	24	22	21	20	19	18	17
No. 4	5/8	127	85	64	51	43	37	32	29	26	24	22	20	19	17	16	15	15	14	13
No. 5	3/4	103	69	52	41	35	30	26	23	21	19	17	16	15	14	13	12	12	11	11
No. 6	7/8	82	55	41	32	28	24	21	19	17	15	14	13	12	11	11	10	10	9	9
No. 7	1	72	48	36	29	24	21	18	16	15	13	12	11	11	10	9	9	8	8	8
No. 8	1-1/8	62	41	31	25	21	18	16	14	13	12	11	10	9	9	8	8	7	7	7
No. 9	1-3/8	31	21	16	13	11	9	8	7	7	6	6	5	5	4	4	4	4	4	3
No. 10	1-1/2	30	20	15	12	10	9	8	7	6	6	5	5	5	4	4	4	4	4	3

Dowel Size (inches)	Hole Size (inches)	Hole Depth (inches)																		
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Smooth Dowel in Concrete:		Number of Holes per Cartridge																		
3/4	7/8	83	56	42	34	28	24	21	19	17	15	14	13	12	11	11	10	10	9	9
7/8	1	72	48	36	29	24	21	18	16	15	13	12	11	11	10	9	9	8	8	8
1	1-1/8	61	41	31	25	21	18	16	14	12	11	10	10	9	8	8	8	7	7	6
1-1/4	1-3/8	50	33	25	20	17	14	13	11	10	9	9	8	7	7	7	6	6	6	5
1-1/2	1-5/8	42	28	21	17	14	12	11	10	9	8	7	7	6	6	6	5	5	4	4