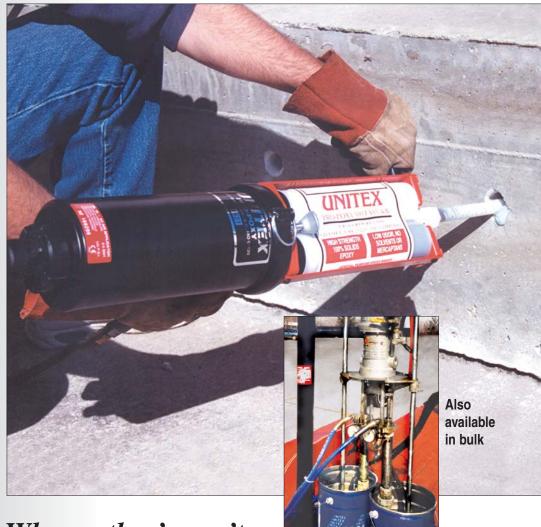
NON-SAG, INJECTABLE ANCHORING GEL

# **BENEFITS:**

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



Where other's can't...
PRO-POXY 300

PRO-POXY 300 FAST can!

# NON-SAG, INJECTABLE ANCHORING GEL

#### DESCRIPTION

Both PRO-POXY 300 and 300 FAST are high-strength, two component epoxy adhesive anchoring gels. PRO-POXY 300 meets ASTM-C-881, Types I, II, IV, and V, Grade 3, Classes B and C. PRO-POXY 300 FAST meets ASTM-C-881, Types I, II\*, IV, V\* Grade 3, Classes A, B, and C. They also meet USDA specifications for use in food processing areas.

\* Except Gel Time

# **◆ 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 material to over  $73^{\circ} \pm 2^{\circ}F$  (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):

PRO-POXY 300: 35 min at  $73^{\circ} \pm 2^{\circ}F$  (23°C) PRO-POXY 300 Fast: 8 min at  $73^{\circ} \pm 2^{\circ}F$  (23°C)

# **♦ DIRECTIONS**

CARTRIDGES: PRO-POXY 300 and 300 FAST may be easily dispensed from cartridges eliminating mixing and measuring. Remove D plugs 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 prior to 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 prior to continuing.

#### **BULK PACKAGED COMPONENTS:**

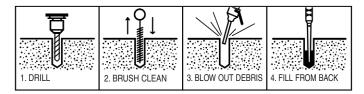
Automatic Dispensing Machines: Only use UNITEX approved positive displacement dispensing machines.

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 Dixie 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 container. Thoroughly mix for 3 minutes, scraping sides of container until uniform grey color is achieved. Only mix 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.

### **◆** APPLICATION

TO ANCHOR BOLTS, DOWELS, & PINS:

- 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 mixer out, filling hole 1/2 full. Rotate the bolt slightly as it is inserted to the back of the hole. Refer to tables for annular space, embedment depth, and edge distances.



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. 1/4in / .64cm. 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  $73^{\circ} \pm 2^{\circ}$ F /  $23^{\circ}$ C. Capseal must be fully cured prior to injection.

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.

#### **◆ PACKAGING**

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

#### **♦** COVERAGE

- 22 oz / 600 ml cartridge 22 oz / 600 ml cartridge yields 37 cu in / 600 cu cm
  - 1 gal / 3.8 L of mixed epoxy yields 231 cu in / 3746 cu cm (See Estimating Guide for Cartidges on back)

# **◆** 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 \*Except Gel Time

V.O.C. Compliant USDA specifications for use in food processing areas ICBO Evaluation Report #5000 City of Los Angeles, Research Report #25220

D.O.T. Listed Dade County Approval Passed ICBO – ES AC58 (Sec. 5.3.3) ASTM E 1512 (Sec. 7.1 & 7.5) Elevated Temp. Creep Test

# **◆ TECHNICAL DATA**

ANCHOR DIA	BIT DIA.	EMBEDMENT	ULTIMATE	E BOND STRE	ND STRENGTH IN CONCRETE		ALLO	TRENGTH (lbs)	
(inches)	(inches)	(inches)	2500 psi	3000 psi	4000 psi	5500 psi	A36 / A307	A193 B7	300 SERIES STAINLES
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*												
			ULTIMATE BOND	STRENGTH (lbs)	ALLOWABLE STEEL	STRENGTH						
DOWEL DIAMETER	BIT DIAMETER	EMBEDMENT	TENSION	SHEAR	TENSION	SHEAR						
(inches)	(inches)	(inches)	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 b. PRO-POXY 300 and PRO-POXY 300 FAST is recognized for installation in water-filled or moist holes, 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.
- - for use in locations subject to severe exterior weathering conditions and for resisting tension and shear loads due to earthquake and wind.

	Allowable Shear Values for Threaded Rod in 2000 psi Concrete*														
			ALLOWABLE STEEL STRENGTH (lbs)												
ANCHOR DIAMETER (inches)	DIAMETER DIAMETER		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										

	1-1/4	1-3/8	11-1/4	12100	26070	17730
k	See notes on	previous page	).			

Cure Times for Adhesive Anchors*												
MINIMUM	CURE	TIME	MINIMUM	CURE TIME								
		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.

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	.90							
EDGE DISTANCE:	TENSION LOADS SHEAR LOADS – THREADED ROD	12 D 12 D	see following chart 4 D	see following chart .21							
	SHEAR LOADS – SMOOTH DOWELS SHEAR LOADS – REBAR	12 D 16 D	4 D 4 D	.21 .15							

	istance for Tensionors in Concrete*	on Values	
STUD SIZE	MINIMUM EDGE DISTANCE	REDUCTION	
(inches)	(C min)	FACTOR	
3/8	1-1/2	.70	
1/2	1-3/4	.66	
5/8	1-3/4	.70	
3/4	1-3/4	.70	
7/8	3-1/2	.70	
1	4	.70	
1-1/4	5	.70	

- $f{*}$  1. The listed values are the minimum distances required to obtain the load values in the tables above and to the left. 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	Shear and Tension Values for Reinforcing Steel*														
			TENSION	ULTIMATE BOND S	STRENGTH (lbs)	ALLOWABLE S	TEEL STRENGTH								
ANCHOR DIAMETER	BIT DIAMETER (inches)	EMBEDMENT	CON	NCRETE STRENGTH	H (f'c)	TENSION OR SHEAR (lbs)									
(inches)		(inches) (inch		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								

<sup>\*</sup> See notes on previous page.

NOTE: Values for Threaded Rod in Hollow & Grout Filled Block available on request.



Estimating	g Guide for	Nu	mb	er (	of F	lole	es p	er	Ca	rtri	dge	•								
		_	2	4						LE DE				4.4	145	10	47	40	40	-00
TUDE ADED DOD	IN CONODETE	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
THREADED ROD		1						NUME	BER OI	- HUL	ES PE	R CAF	KIKID	GE						
ROD SIZE (inches)	HOLE SIZE (inches)				I															
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 IN CONCE	REBAR IN CONCRETE																			
REBAR SIZE (inches)	HOLE SIZE (inches)																			
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
SMOOTH DOWEL	IN CONCRETE																			
DOWEL SIZE (inches)	HOLE SIZE (inches)																			
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

# **♦** 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 after cure.
- Do not allow mixed epoxy to reside in static mixing head or mixer for more than 5 minutes or gelation and blockage may result.

### **CAUTION**

- 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 recommended if ventilation is inadequate.
- Avoid breathing vapors.
- · Avoid skin contact.

# **♦** FIRST AID

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

RESPIRATORY PROBLEMS: 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.

#### **♦** CLEANUP

Uncured material can be removed with UNITEX CITRI-CLEAN or other approved solvent. Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state, and federal disposal regulations. Cured material can only be removed mechanically.

Disclaimer of Warranties: Neither manufacturer nor seller have any knowledge or control concerning the purchaser's use of the product. No expressed warranty is made by manufacturer or seller with respect to the results of any use of the product or container that the product comes in. No implied warranties including, but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose are made with respect to the product. Neither manufacturer nor seller assume any liability for personal injury, loss or damage

resulting from the use of the product. In the event that the product shall prove defective, buyer's exclusive remedy shall be as follows: Seller or manufacturer shall, upon request of buyer, replace any quantity of the product which is proven to be defective or shall, at its option, refund the purchase price of the product upon return of the product. Manufacturer shall not be responsible for use of this product in a manner to infringe on any patent held by others.

Contact UNITEX Technical Services for further information or installation instructions.

