

UNITEX® PRO-POXY 400

ALL WEATHER EPOXY ACRYLATE HYBRID ANCHORING GEL

BENEFITS:

- ◆ Guns & Performs to -15° F
- ◆ STYRENE FREE!
- ◆ Meets performance requirements of ASTM-C-881; Types I, II*, IV & V*; Classes A, B & C; Grade 3
*With the exception of gel time.
- ◆ Allowed at close edge distances
- ◆ Allowed at shallow embedments
- ◆ Bonds to smooth diamond core drilled holes
- ◆ Performs in dry, damp, & water-filled holes



Available in
28 & 5 oz cartridges

*New technology for
all weather anchoring...*
PRO-POXY 400!

0855
3101 GARDNER - K.C., MO 64120
UNITEX
PRO-POXY

**ALL WEATHER
EPOXY ACRYLATE**
For use in Concrete • Stone • Masonry
PRO-POXY 400 (A/B)
Epoxy Acrylate Anchoring Gel

Styrene Free!

TEMPERATURE	GEL TIME	CURE TIME
-15°F / -21°C	8 hrs	35 hrs*
-5°F / -21°C	6 hrs	28 hrs*
5°F / -15°C	4 hrs	24 hrs*
20°F / -7°C	45 min	6 hrs
40°F / 4°C	20 min	90 min
50°F / 10°C	15 min	60 min
60°F / 16°C	7 min	45 min
70°F / 21°C	6 min	30 min
80°F / 27°C	5 min	25 min
100°F / 38°C	5 min	20 min
120°F / 49°C	4 min	20 min




Chemically Anchors

- Bolts
- Dowels
- Pins

*Performing
where others
can't!*

PRO-POXY 400



-  Negligible Weathering
-  Moderate Weathering
-  Severe Weathering

*Consult UNITEX Technical Service for wet hole application.

UNITEX® PRO-POXY 400

ALL WEATHER EPOXY ACRYLATE HYBRID ANCHORING GEL

◆ DESCRIPTION

PRO-POXY 400 is a 100% solids, solvent-free structural epoxy acrylate hybrid anchoring gel. It meets the performance requirements of ASTM-C-881, Types I, II, IV & V; Classes A, B & C; Grade 3. Using the latest technology, PRO-POXY 400 has been engineered to gun at -15°F and attain high early strength. Hand guns are only recommended for temperatures above 20°F. Pneumatic guns provide efficiency anytime and are essential for product temperatures below 20°F. PRO-POXY 400 is an excellent, safe, all-weather, high performance anchoring gel.

◆ USAGE

- Heavy duty anchoring of rebar, threaded rods and epoxy coated dowels in all concrete, brick, or stone masonry.
- Best choice for structural bonding of heavy loads.
- Grouting bolts, dowels, pins, vertical and overhead, where extremely rapid setting, fast turn-around times are needed.

◆ 5 oz CARTRIDGE INSTRUCTIONS

- 1) Remove screw-top lid and end plug.
- 2) Screw static mixer onto cartridge.
- 3) Twist-lock dispenser onto cartridge with thumbscrew in fully opened position.
- 4) Extrude adhesive by twisting thumbscrew clockwise until uniform color is achieved. Dispense under constant uniform pressure. If dispensing is altered, re-establish uniform color prior to continuing.

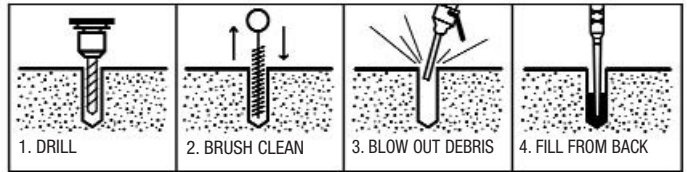
◆ 28 oz CARTRIDGE INSTRUCTIONS

- 1) Remove D plugs from small end of cartridge.
- 2) Slide retaining nut over static mixer. Secure static mixer to cartridge by screwing retaining nut onto cartridge.
- 3) Place assembled cartridge into a Unitex pneumatic or hand gun.
- 4) Extrude adhesive until uniform color is achieved. Dispense under constant uniform pressure. If dispensing is altered, re-establish uniform color prior to continuing. When using a hand gun, release pressure from gun by pressing thumb button at every pause in dispensing. Re-establish uniform color prior to continuing.

◆ APPLICATION

ANCHORING BOLTS, DOWELS & PINS:

- 1) Drill holes to proper diameter and length.
- 2) Clean holes with a nylon brush.
- 3) Blow concrete dust from hole with oil-free compressed air from bottom up.
- 4) Static mixer should be placed in back of hole. Fill hole while pulling static mixer out using constant uniform pressure, filling hole approximately 1/2 full. Rotate the bolt as it is inserted to the back of the hole. Annular space should not exceed 1/8 inch (3.2 mm). Consult tables for embedment depths and loads.



◆ STORAGE CONDITIONS

- Store below 75° F / 23° C.
- Shelf life – 1 year

◆ COVERAGE

- 150 ml cartridge—yields 5 oz or 9 cu in.
- 750 ml x 75 ml cartridge—yields 28 oz or 50 cu in.

◆ PACKAGING

- 150 ml cartridge
- 750 ml x 75 ml cartridge

◆ CURE TIMES

Cure Times*		
MINIMUM SUBSTRATE TEMP.	GEL TIME	CURE TIME
-15°F / -26°C	8 hrs	36 hrs*
-5°F / -21°C	6 hrs	28 hrs*
0°F / -18°C	4 hrs	24 hrs*
5°F / -15°C	3 hrs	22 hrs*
20°F / -7°C	45 min	6 hrs
40°F / 4°C	20 min	90 min
50°F / 10°C	15 min	60 min
60°F / 16°C	8 min	45 min
70°F / 21°C	7 min	35 min
80°F / 27°C	6 min	30 min
100°F / 38°C	5 min	25 min
120°F / 49°C	4 min	20 min

* Contact Unitex Technical Service for cold weather applications.

◆ COMPLIANCES

ASTM-C-881; Types I, II*, IV & V*; Classes A, B & C; Grade 3

V.O.C. Compliant

Meets USDA specifications for use in food processing areas.

ICBO Evaluation Report Pending

City of Los Angeles Research Report Pending

D.O.T. Listed

Dade County Approval Pending

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

* With exception of gel time.

◆ TECHNICAL DATA

PRO-POXY 400 Ultimate Tension Values for Threaded Rod in Concrete ^{1, 2, 3}									
ANCHOR DIAMETER (inches)	BIT DIAMETER (inches)	EMBEDMENT DEPTH (inches)	CRITICAL EDGE DISTANCE, C _{cr} (inches)	MINIMUM EDGE DISTANCE, C _{min} (inches)	ULTIMATE BOND strength (lbs)		ALLOWABLE STEEL STRENGTH (lbs)		
					CONCRETE STRENGTH, f' _c		A36 / A307	A193 B7	300 SERIES STAINLESS
					2,300 psi	4,300 psi			
3/8	7/16	1-11/16	4-1/2	1-1/2	3,520	5,330	2,110	4,550	3,630
3/8	7/16	3-3/8	4-1/2	1-1/2	10,685	10,785	2,110	4,550	3,630
1/2	9/16	2-1/4	6	2	6,435	9,780	3,750	8,100	6,470
1/2	9/16	4-1/2	6	2	15,405	19,985	3,750	8,100	6,470
5/8	3/4	2-13/16	7-1/2	2-1/2	10,600	17,315	5,870	12,655	10,130
5/8	3/4	5-5/8	7-1/2	2-1/2	29,465	32,730	5,870	12,655	10,130
3/4	7/8	3-3/8	9	3	15,780	24,285	8,460	18,220	12,400
3/4	7/8	6-3/4	9	3	28,995	43,460	8,460	18,220	12,400
7/8	1	3-15/16	10-1/2	3-1/2	17,425	31,795	11,500	24,800	16,860
7/8	1	7-7/8	10-1/2	3-1/2	40,235	56,865	11,500	24,800	16,860
1	1-1/8	4-1/2	12	4	22,980	35,400	15,020	32,400	22,020
1	1-1/8	9	12	4	54,715	54,945	15,020	32,400	22,020
1-1/4	1-3/8	5-5/8	13-1/2	5	33,220	54,230	23,480	50,610	34,420
1-1/4	1-3/8	11-1/4	13-1/2	5	74,125	80,180	23,480	50,610	34,420

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

³ Anchors installed at the minimum edge distance must have the tabulated allowable tension load multiplied by a 0.65 reduction factor. Linear interpolation of allowable loads may be used for anchors installed at a distance between critical and minimum edge distances.

PRO-POXY 400 ASTM-C-881 Results

LABORATORY TESTS	RESULTS	ASTM-C-881 SPECIFICATIONS
MIX RATIO (A TO B BY VOLUME)	10 to 1	N/A
C-881 Consistency	0 (no flow)	1/4" Flow maximum ¹
C-881 Gel Time	7.5 minutes	5 minutes minimum ¹
D-695 Compressive Strength	10,540 psi	10,000 psi minimum ¹
D-695 Compressive Modulus	265,000 psi	200,000 psi minimum ¹
D-570 Absorption	0.08%	1% maximum ¹
D-648 Heat Deflection Temperature	144°F	120°F minimum ¹
C-882 Bond Strength (2 days)	2,890 psi	1000 psi minimum ¹
C-882 Bond Strength (14 days)	3,250 psi	1500 psi minimum ¹
D-638 Elongation at Break	1.321%	1% minimum ¹
D-1875 Density (lb/gal) Component A	12.92	n/a
D-1875 Density (lb/gal) Component B	13.69	n/a

¹ ASTM-C-881, Type IV: Load-bearing specifications. Consult UNITEX for instructions, details, or independent test reports.

PRO-POXY 400 Allowable Shear Values for Threaded Rod in 2000psi (min) Concrete ^{1, 2, 3}

See notes on previous page.

ANCHOR DIAMETER (inches)	BIT DIAMETER (inches)	EMBEDMENT (inches)	CRITICAL EDGE DISTANCE (inches)	ALLOWABLE SHEAR LOADS BASED ON BOND	ALLOWABLE SHEAR LOAD BASED ON STEEL STRENGTH (lbs)		
				STRENGTH (lbs)	A36 / A307	A193 B7	300 SERIES STAINLESS
3/8	7/16	3 3/8	1 3/4	1,100	1,080	2,345	1,870
1/2	9/16	4 1/2	1 3/4	1,425	1,930	4,170	3,330
5/8	3/4	5 5/8	1 3/4	2,175	3,030	6,520	5,220
3/4	7/8	6 3/4	1 3/4	2,535	4,360	9,390	6,390
7/8	1	7 7/8			5,930	12,780	8,680
1	1 1/8	9			7,740	16,690	11,340
1 1/4	1 3/8	11 1/4			12,100	26,070	17,730

PRO-POXY 400 Shear and Tension Values for Reinforcing Steel ^{1, 2, 3}

See notes on previous page.

ANCHOR SIZE	BIT DIAMETER (inches)	EMBEDMENT (inches)	CRITICAL EDGE DISTANCE, C _c (inches)	MINIMUM EDGE DISTANCE, C _{min} (inches)	TENSION ULTIMATE BOND STRENGTH (lbs)	ALLOWABLE STEEL STRENGTH	
					CONCRETE STRENGTH, r' _c 2,300 psi	TENSION OR SHEAR (lbs)	
						Grade 40	Grade 60
# 3	7/16	3 3/8	4 1/2	1 1/2	6,220	2,200	2,640
# 4	5/8	4 1/2	6	2	16,430	4,000	4,800
# 5	3/4	5 5/8	7 1/2	2 1/2	23,310	6,200	7,440
# 6	7/8	6 3/4	9	3	31,145	8,800	10,560
# 7	1	7 7/8	10 1/2	3 1/2	36,975	12,000	14,400
# 8	1 1/8	9	12	4	43,320	15,600	18,720
#9	1 3/8	11 1/4	13 1/2	5	61,340		

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

The following chart lists the estimated number of anchors which can be installed per cartridge. The number of anchors may vary from job to job, depending upon waste and on site procedures. This guide is for estimates only and does not supersede engineer specifications.

PRO-POXY 400 Estimating Guide for Number of Holes per 28 oz Cartridge																				
		EMBEDMENT 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																				
ROD SIZE (inches)	HOLE SIZE (inches)	NUMBER OF HOLES PER 28 oz CARTRIDGE																		
3/8	7/16	244	163	122	98	81	70	61	55	50	45	41	38	36	33	31	29	28	27	25
1/2	9/16	173	116	87	70	59	50	43	37	36	32	29	27	24	23	22	20	19	19	18
5/8	3/4	89	60	45	36	31	25	23	20	18	17	15	14	13	13	11	11	10	10	9
3/4	7/8	71	47	36	29	24	20	18	17	14	13	13	11	10	10	9	9	9	8	8
7/8	1	60	39	31	24	20	15	15	14	13	11	10	10	9	9	8	8	8	6	6
1	1 1/8	48	33	24	20	17	14	13	11	10	9	9	8	8	6	6	6	6	5	5
1-1/8	1-1/4	43	29	22	18	15	13	11	10	9	9	8	8	6	6	6	5	5	5	5
1-1/4	1-3/8	37	25	19	15	13	11	10	9	8	8	6	6	6	5	5	5	5	4	4
1-1/2	1-5/8	29	20	15	13	10	9	8	6	6	6	5	5	5	4	4	4	4	4	4
REBAR IN CONCRETE																				
REBAR SIZE (inches)	HOLE SIZE (inches)	NUMBER OF HOLES PER 28 oz CARTRIDGE																		
No. 3	1/2	207	139	104	84	70	60	52	47	42	38	36	33	31	28	27	25	24	23	22
No. 4	5/8	162	108	81	65	55	47	41	37	33	31	28	25	24	22	20	19	19	18	17
No. 5	3/4	131	88	66	52	45	38	33	29	27	24	22	20	19	18	17	15	15	14	14
No. 6	7/8	104	70	52	41	36	31	27	24	22	19	18	17	15	14	14	13	13	11	11
No. 7	1	92	61	46	37	31	27	23	20	19	17	15	14	14	13	11	11	10	10	10
No. 8	1 1/8	79	52	39	32	27	23	20	18	17	15	14	13	11	11	10	10	9	9	9
No. 9	1 3/8	39	27	20	17	14	11	10	9	9	8	8	6	6	5	5	5	5	5	4
No. 10	1 1/2	38	25	19	15	13	11	10	9	8	8	6	6	6	5	5	5	5	5	4

◆ LIMITATIONS

- Concrete or masonry surface must be frost free.
- Do not thin. Solvents will prevent proper cure.
- Minimum age of concrete must be 3–7 days, depending on curing and drying conditions.

◆ CAUTIONS

- Irritant to skin and eyes.
- Use of safety goggles and chemical resistant gloves are recommended.
- Use of a NIOSH/MSHA organic vapor respirator recommended if ventilation is inadequate.

◆ FIRST AID

Eye Contact

- Flush immediately with water for at least 15 min. Contact physician immediately.

Respiratory Problems

- Remove person to fresh air.

Skin Contact

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

◆ CLEANUP

Collect with absorbent material. Flush area with water. Dispose of in accordance with local disposal regulations. Uncured material can be removed with Unitex CITRI-CLEAN or other approved solvent. 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.



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