



A7 Acrylic Adhesive

Easy To Use A7 saves you time and money

Description/suggested specifications*

Fast Dispensing, Fast Curing Acrylic Adhesive

The acrylic resin and hardening agent are completely mixed as they are simultaneously dispensed from the dual cartridge through a static mixing nozzle, directly into the anchor hole. A7 can be used with threaded rod or rebar.

Advantages

- All weather formula, down to 0°F and below
- No drip, no sag, easy clean up
- Fast & easy dispensing, 28-oz. cartridge in 16 seconds
- Fast curing time, 35 minutes at 60°F
- Rods are easier to insert into the hole with A7 compared with other adhesives
- Works in damp holes and underwater applications
- One formula for both hollow and solid base materials

Approvals/listings

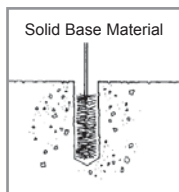
ASTM Type IV, Grade 3, Class A, B, C (exceptions - A7 gels faster than ASTM requirements and does not contain any epoxy)

ICBO Evaluation Service, Inc. – #ER-5560

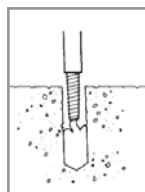
City of Los Angeles – RR#25379

DOT Approvals

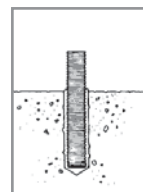
Installation Steps



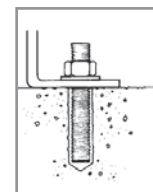
1. Drill proper size hole. Clean out hole from bottom with forced air. Complete hole preparation with use of a brush and repeat cleaning with forced air (leave no dust or slurry).



2. When starting new cartridge or nozzle, dispense and discard enough adhesive until uniform dark grey color is achieved. Insert the nozzle into the bottom of the hole and fill to 1/2 the hole depth.



3. Insert the selected rod slowly by hand into the bottom of the hole with a slow twisting motion. This insures the adhesive fills voids and crevices uniformly.



4. See A7 Cure Time Charts for set-up time. After the recommended cure time is met, install and tighten fixture into place.

Epcon A7 28 oz. Ordering Information

Part	Description	Box Qty
	28 Fluid Ounce Cartridge A7	8
	Mixing Nozzle for A7-28 Oz. Cartridge A50 nozzles fit into 3/8" holes & tip can be broken off to increase flow for larger holes	24
	Hand Dispenser for A7-28 Cartridge Largest hand dispensable cartridge—still easy to dispense	1
	Pneumatic Dispenser for A7-28 Cartridge	1

Epcon A7 8 oz. Ordering Information

Part	Description	Box Qt.
	Fits Hilti® P2000 Dispensing Tools 8 Fluid Ounce Cartridge A7	12
	Mixing Nozzle for A7-8 Cartridge	24
	Hand Dispenser for A7-8 Cartridge	1

Hilti® P2000 is a registered trademark of Hilti, Corp.



Curing Times and Dispensing Speeds

Temperature (F / °C)	Working time	Full Curing Time	Dispensing ¹ Speed
100° / 38°	5 Minutes	25 Minutes	16 Seconds
80° / 27°	5.5 Minutes	30 Minutes	16 Seconds
60° / 16°	7 Minutes	35 Minutes	26Seconds
40° / 4°	15 Minutes	75 Minutes	47Seconds
20° / -7°	35 Minutes	6 Hours	1 Min. 21 Sec.
0° / -18°	4 Hours	24 Hours	2 Minutes

¹ Dispensing rates for A7-28 cartridge using A200 pneumatic tool. Cartridge temperature = temperature shown



A7 Acrylic Adhesive

Easy To Use A7 saves
you time and money

Technical Data

REBAR

Epcon A7 Estimating Table For 8 Fluid Oz. Cartridge
 Number Of Anchoring Installations Per Cartridge* Using Reinforcing Bar With A7 Adhesive In Solid Concrete

Rebar	Hole Dia. Inches	Embedment Depth In Inches (mm)														
		1 (25.4)	2 (50.8)	3 (76.2)	4 5 (101.6) (127.0)	6 (152.4)	7 8 9 (177.8) (203.2) (228.6) (254.0)	10	11 (279.4)	12 (304.8)	13 (330.2)	14 (355.6) (381.0)	15			
# 3	7/16	187.8	93.9	62.6	46.9	37.6	31.3	26.8	23.5	20.9	18.8	17.1	15.6	14.4	13.4	12.5
# 4	5/8	105.7	52.9	35.2	26.4	21.1	17.6	15.1	13.2	11.7	10.6	9.6	8.8	8.1	7.6	7.0
# 5	3/4	81.1	40.5	27.0	20.3	16.2	13.5	11.6	10.1	9.0	8.1	7.4	6.8	6.2	5.8	5.4
# 6	7/8	65.5	32.7	21.8	16.4	13.1	10.9	9.4	8.2	7.3	6.5	6.0	5.5	5.0	4.7	4.4
# 7	1	60.5	30.2	20.2	15.1	12.1	10.1	8.6	7.6	6.7	6.0	5.5	5.0	4.7	4.3	4.0
# 8	1-1/8	50.2	25.1	16.7	12.6	10.0	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.3
# 9	1-1/4	29.1	14.6	9.7	7.3	5.8	4.9	4.2	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9
# 10	1-1/2	23.8	11.9	7.9	6.0	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7	1.6
# 11	1-3/4	14.6	7.3	4.9	3.6	2.9	2.4	2.1	1.8	1.6	1.5	1.3	1.2	1.1	1.0	1.0

* Be sure to use the correct multiplier. Approximate number of anchors for 28 ounce cartridge: Multiply the number of 8 Oz. anchors by 3.5.

THREADED ROD

Epcon A7 Estimating Table For 8 Fluid Oz. Cartridge
 Number Of Anchoring Installations Per Cartridge* Using Threaded Rod With A7 Adhesive In Solid Concrete

Rod In. (mm)	Hole Dia. Inches	Embedment Depth In Inches (mm)														
		1 (25.4)	2 (50.8)	3 (76.2)	4 5 6 (101.6) (127.0)	7 (152.4)	8 9 (177.8) (203.2)	10 (228.6) (254.0)	11 (279.4)	12 (304.8)	13 (330.2)	14 (355.6) (3)	15 (81.0)			
1/4 (6.4)	5/16	259.5	129.7	86.5	64.9	51.9	43.2	37.1	32.4	28.8	25.9	23.6	21.6	20.0	18.5	17.3
3/8 (9.5)	7/16	150.2	75.1	50.1	37.6	30.0	25.0	21.5	18.8	16.7	15.0	13.7	12.5	11.6	10.7	10.0
1/2 (12.7)	9/16	108.1	54.1	36.0	27.0	21.6	18.0	15.4	13.5	12.0	10.8	9.8	9.0	8.3	7.7	7.2
5/8 (15.9)	11/16	77.6	38.8	25.9	19.4	15.5	12.9	11.1	9.7	8.6	7.8	7.1	6.5	6.0	5.5	5.2
	3/4	55.4	27.7	18.4	13.8	11.1	9.2	7.9	6.9	6.1	5.5	5.0	4.6	4.3	4.0	3.7
3/4 (19.1)	13/16	54.7	27.3	18.2	13.7	10.9	9.1	7.8	6.8	6.1	5.5	5.0	4.6	4.2	3.9	3.6
	7/8	43.6	21.8	14.6	10.9	8.8	7.3	6.3	5.5	4.9	4.4	4.0	3.6	3.4	3.1	2.9
7/8 (22.2)	15/16	52.5	26.2	17.5	13.1	10.5	8.7	7.5	6.6	5.8	5.2	4.8	4.4	4.0	3.7	3.5
	1	36.4	18.2	12.2	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4
1 (25.4)	1-1/16	44.9	22.4	15.0	11.2	9.0	7.5	6.4	5.6	5.0	4.5	4.1	3.7	3.5	3.2	3.0
	1-1/8	34.4	17.2	12.0	8.6	7.5	6.0	5.0	4.3	3.7	3.3	3.0	2.7	2.5	2.3	2.1
1-1/4 (31.8)	1-5/16	28.7	14.4	9.6	7.2	5.7	4.8	4.1	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9
	1-3/8	22.4	11.2	7.6	5.6	4.5	3.8	3.2	2.8	2.5	2.3	2.1	1.9	1.7	1.6	1.5

* The number of anchoring installations is based upon calculations of hole volumes using ANSI tolerance carbide tipped drill bits, the nominal areas of the reinforcing bars and the stress areas of the threaded rods. These estimates do not account for waste.
 * Approximate the number of anchors per 28 Oz. cartridge: Multiply the number of 8Oz. anchors by 3.53.

Epcon A7 Adhesive Anchoring System

Spacing/Edge Distance

Load Factor Summary¹

LOAD FACTOR	DISTANCE FROM EDGE OF CONCRETE
Critical Edge Distance—Tension 100% Tension Load	→ 0.75* Anchor Embedment (or greater)
Minimum Edge Distance—Tension 70% Tension Load	→ 0.25* Anchor Embedment
Critical Edge Distance—Shear 100% Shear Load	→ 1.25* Anchor Embedment (or greater)
Minimum Edge Distance—Shear 10% Shear Load	→ 0.25* Anchor Embedment

LOAD FACTOR	DISTANCE FROM ANOTHER ANCHOR
Critical Spacing—Tension 100% Tension Load	→ 1.25* Anchor Embedment (or greater)
Minimum Spacing—Tension 80% Tension Load	→ 0.25* Anchor Embedment

¹ Use linear interpolation for load factors at edge distances or spacing distances between critical and minimum.





C6

**Reliable Performance
C6 Always Works Even Under
The Most Severe
Installation
Conditions**

Description/Suggested Specifications*

Fast Curing Epoxy for All Conditions

The hardener and resin are completely mixed as they are dispensed from the dual cartridge through a static mixing nozzle. The pre-mixed adhesive is injected directly into the anchor hole. C6 can be used with threaded rod or rebar (for fastening to hollow base materials, see pages 96 and 99).

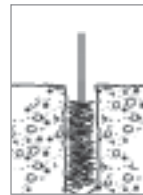
Advantages

- 1 hour cure time (see below)
- Works in damp holes and underwater applications
- Minimum shrinkage—can be used in oversized holes and diamond cored holes
- High heat deflection temperature: 140°F (ASTM D648)
- One formula for both solid and hollow base materials
- NSF standard 61 certified for drinking water systems
- Extensively tested—earthquake, underwater, creep, freeze-thaw, radiation, fire, fatigue electrical isolation, ozone and many more test programs have been conducted on C6
- Extensive use—C6 has been used on projects all over the world for over 13 years

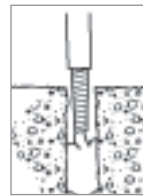
Approvals/listings

- ICBO Evaluation Service, Inc. – #ER-4285
- City of Los Angeles – RR#24975
- City of Los Angeles – RR#24929
- NSF Standard 61 Certified for Drinking Water Components
- ASTM C881-90, Type IV, Grade 3, Class A, B, and C
- DOT Approvals (see page 11)

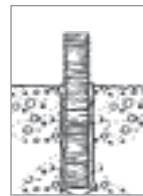
Installation Steps



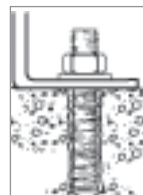
- Drill proper sized hole. Clean out hole from bottom with forced air. Complete hole preparation with use of a brush and repeat cleaning with forced air (leave no dust or slurry)



- When starting new cartridge or nozzle, dispense and discard enough adhesive until uniform grey color is achieved. Insert the nozzle into the bottom of the hole and fill to 1/2 the hole depth.



- Insert the selected rod slowly by hand into the bottom of the hole with a slow twisting motion. This insures the adhesive fills voids and crevices uniformly.



- See C6 Cure Time Charts for set-up time. After the recommended cure time is met, install and tighten fixture into place.







Curing Times

Temperature (F / °C) T	Working time	Full Curing Time
120° / 49°	4 Minutes	1 Hour
90° / 32°	5 Minutes	1 Hour
70° / 20°	7 Minutes	1 Hour
60° / 16°	10 Minutes	2 Hours
50° / 10°	20 Minutes	24 Hours
40° / 4°	45 Minutes	32 Hours





Epcon C6 2 oz. Ordering Information




Part	Description	Box/Bag Qty	Carton Qty
	C6 Adhesive 2 Fl. Oz. Cartridge	12	12
	Mixing Nozzle for C6-2 Cartridge	24	24
	Hand Dispenser for C6-2 Cartridge	1	1
	Maintenance Kit 6 pcs. C6-2 Cartridges, 12 pcs. E12 Nozzles, 1 pc. E400 Tool	1	1



Epcon C6 18 oz. Ordering Information

Part	Description	Box/Bag Qty	Carton Qty
	C6 Adhesive, 18 Fl. Oz. Cartridge	1	12
	Mixing Nozzle (1/2" outside diameter)	4	24
	Mixing Nozzle (11/16" outside diameter)	5	20
	Hand Dispenser for C6-18 Cartridge	1	1
	Pneumatic Dispenser for C6-18 Cartridge	1	1

Epcon C6 22 oz. Ordering Information

Part	Description	Box/Bag QTY	Carton QTY
	C6 Adhesive, 22 Fl. Oz. Cartridge	1	12
	Mixing Nozzle for C6-22 Cartridge	24	24
	Hand Dispenser for C6-22 and C6-18 Cartridges	1	1



Suggested Specifications

EPOXY ADHESIVE:

- Two component, 100% solid (containing no solvents), non-sag paste, insensitive to moisture, grey in color
- Meets NSF Standard 61 for use in conjunction with drinking water systems
- Meets ASTM C881-90, Type IV, Grade 3, Class A, B, and C with the exception of gel time
- Shrinkage during cure per ASTM D2566: .00051 in./in. maximum
- Compressive strength, ASTM D695: 10,300 psi minimum
- Shelf life: 3 years minimum
- Water solubility: None
- Heat deflection temperature, ASTM D648: 140°F minimum

Packaging:

- Disposable, self-contained cartridge system capable of dispensing both epoxy components in the proper mixing ratio
- Epoxy components dispensed through a static mixing nozzle that thoroughly mixes the material, and places the epoxy at the base of the pre-drilled hole
- Cartridge markings: Include manufacturer's name, batch number and dating, mix ratio by volume, ANSI hazard classification, and appropriate ANSI handling precautions

REBAR

Epon C6 18 Fluid Ounce Cartridge Estimating Number of Anchoring Installations Per Cartridge*
Using Reinforcing Bar with C6 Adhesive in Solid Concrete

Rebar	Hole Dia. Inches	Embedment Depth In Inches (mm)														
		1 (25.4)	2 (50.8)	3 (76.2)	4 (101.6)	5 (127.0)	6 (152.4)	7 (177.8)	8 (203.2)	9 (228.6)	10 (254.0)	11 (279.4)	12 (304.8)	13 (330.2)	14 (355.6)	15 (381.0)
# 3	1/2	316.7	158.4	105.6	79.2	63.3	52.8	45.2	39.6	35.2	31.7	28.8	26.4	24.4	22.6	21.1
# 4	5/8	239.3	119.6	79.8	59.8	47.9	39.9	34.2	29.9	26.6	23.9	21.8	19.9	18.4	17.1	16.0
# 5	3/4	183.5	91.8	61.2	45.9	36.7	30.6	26.2	22.9	20.4	18.4	16.7	15.3	14.1	13.1	12.2
# 6	7/8	148.2	74.1	49.4	37.0	29.6	24.7	21.2	18.5	16.5	14.8	13.5	12.3	11.4	10.6	9.9
# 7	1-1/8	71.0	35.5	23.7	17.7	14.2	11.8	10.1	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.7
# 8	1-1/4	63.2	31.6	21.1	15.8	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.3	4.9	4.5	4.2
# 9	1-3/8	65.9	33.0	22.0	16.5	13.2	11.0	9.4	8.2	7.3	6.6	6.0	5.5	5.1	4.7	4.4
# 10	1-1/2	53.9	27.0	18.0	13.5	10.8	9.0	7.7	6.7	6.0	5.4	4.9	4.5	4.1	3.9	3.6
# 11	1-3/4	33.0	16.5	11.0	8.2	6.6	5.5	4.7	4.1	3.7	3.3	3.0	2.7	2.5	2.4	2.2

* Approximate number of anchors for 22 Oz. Cartridge: Multiply the number of 18 Oz. anchors by 1.22.

THREADED ROD

Epon C6 18 Fluid Ounce Cartridge Estimating Number of Anchoring Installations Per Cartridge*
Using Threaded Rod with C6 Adhesive in Solid Concrete

Rod In. (mm)	Hole Dia. Inches	Embedment Depth In Inches (mm)														
		1 (25.4)	2 (50.8)	3 (76.2)	4 (101.6)	5 (127.0)	6 (152.4)	7 (177.8)	8 (203.2)	9 (228.6)	10 (254.0)	11 (279.4)	12 (304.8)	13 (330.2)	14 (355.6)	15 (381.0)
1/4 (6.4)	5/16	587.3	293.7	195.8	146.8	117.5	97.9	83.9	73.4	65.3	58.7	53.4	48.9	45.2	42.0	39.2
3/8 (9.5)	7/16	340.0	170.0	113.3	85.0	68.0	56.7	48.6	42.5	37.8	34.0	30.9	28.3	26.2	24.3	22.7
1/2 (12.7)	9/16	244.7	122.4	81.6	61.2	48.9	40.8	35.0	30.6	27.2	24.5	22.2	20.4	18.8	17.5	16.3
5/8 (15.9)	3/4	125.2	62.6	41.7	31.3	25.0	20.9	17.9	15.7	13.9	12.5	11.4	10.4	9.6	8.9	8.3
3/4 (19.1)	7/8	99.1	49.5	33.0	24.8	19.8	16.5	14.2	12.4	11.0	9.9	9.0	8.3	7.6	7.1	6.6
7/8 (22.2)	1	82.0	41.0	27.4	20.5	16.4	13.7	11.7	10.3	9.1	8.2	7.5	6.8	6.3	5.9	5.5
1 (25.4)	1-1/8	67.6	33.8	22.5	16.9	13.5	11.3	9.7	8.4	7.5	6.8	6.1	5.6	5.2	4.8	4.5
1-1/4 (31.8)	1-3/8	51.2	25.6	17.0	12.8	10.2	8.5	7.3	6.4	5.7	5.1	4.6	4.3	3.9	3.7	3.4

* The number of anchoring installations is based upon calculations of hole volumes using ANSI tolerance carbide tipped drill bits, the nominal areas of the reinforcing bars and the stress area of the threaded rods. These estimates do not account for waste.

* Approximate number of anchors for 22 Oz. Cartridge: Multiply the number of 8 Oz. anchors by 1.22.



G5 Extended Working Time Epoxy

Provides Longer Working Time In Environments Where Other Adhesives Set Too Fast

Description/Suggested Specifications*

Extended Working Time Epoxy

The epoxy resin and hardener are completely mixed as they are dispensed from the dual cartridge through a static mixing nozzle, directly into the anchor hole. G5 can be used with threaded rod or rebar.

Advantages

- Nozzles last longer—saves money
- Gives more time to install anchors
- Easier to install anchors in hot weather
- Easier installation of larger diameter anchors and deeper embedments
- Odorless

Approvals/listings

ICBO Evaluation Service Inc. – #ER-5308
 City of Los Angeles – RR#25270
 ASTM C881-90, Type II, Grade 3, Class A, B, and C
 DOT Approvals
 Metro-Dade County

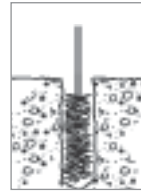
Suggested Specifications

EPOXY ADHESIVE:

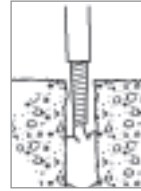
- Two component, 100% solids (containing no solvents), non-sag paste, insensitive to moisture, tan in color
- Meets ASTM C881-90, Type II, Grade 3, Classes A, B, and C with the exception of bond strength
- Shrinkage during cure per ASTM D2566: .00004 in./in
- Compressive strength, ASTM D695: 9170 psi minimum
- Shelf life: 2 years minimum
- Water solubility: None

G5 EXTENDED TIME WORKING EPOXY

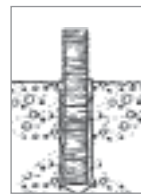
Installation Steps



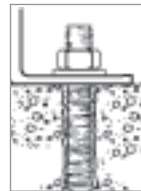
1. Drill proper sized hole. Clean out hole from bottom with forced air. Complete hole preparation with use of a brush and repeat cleaning with forced air (leave no dust or slurry).



2. When starting new cartridge or nozzle, dispense and discard enough adhesive until uniform tan color is achieved. Insert the nozzle into the bottom of the hole and fill to 1/2 the hole depth.



3. Insert the selected rod slowly by hand into the bottom of the hole with a slow twisting motion. This insures the adhesive fills voids and crevices uniformly.



4. See G5 Cure Time Charts for set-up time. After the recommended cure time is met, install and tighten fixture into place.



Curing Times

Temperature (F°/C°)	Working Time	Full Curing Time
120 ° / 49°	18 Minutes	8 Hours
90 ° / 32°	34 Minutes	8 Hours
70 ° / 20°	45 Minutes	8 Hours
60 ° / 16°	50 Minutes	9 Hours
50 ° / 10°	60 Minutes	24 Hours
40 ° / 4°	68 Minutes	32 Hours

