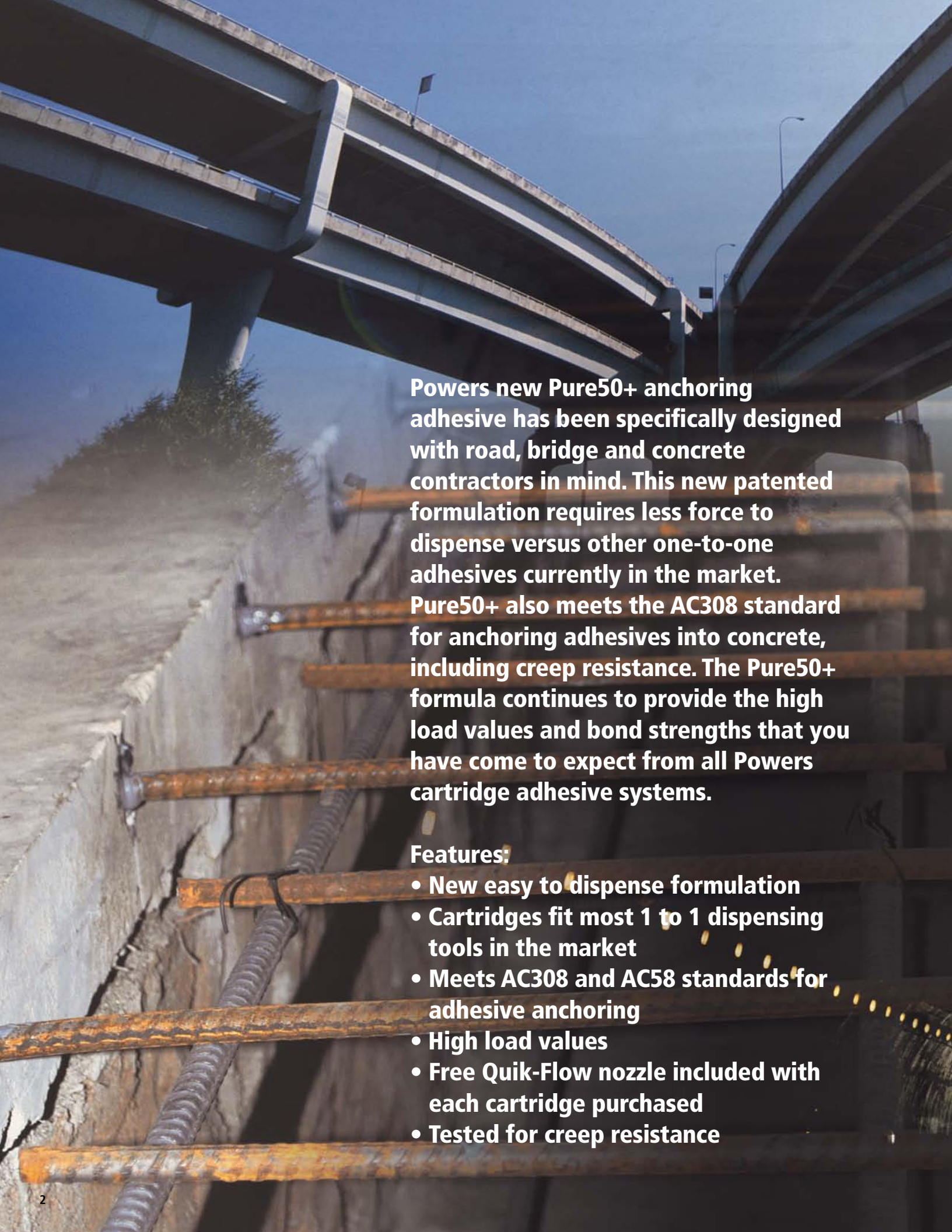
Powers is a proud member of:

Powers®
FASTENING INNOVATIONS

A domestic company headquartered in Brewster, NY



Powers new Pure50+ anchoring adhesive has been specifically designed with road, bridge and concrete contractors in mind. This new patented formulation requires less force to dispense versus other one-to-one adhesives currently in the market. Pure50+ also meets the AC308 standard for anchoring adhesives into concrete, including creep resistance. The Pure50+ formula continues to provide the high load values and bond strengths that you have come to expect from all Powers cartridge adhesive systems.

Features:

- **New easy to dispense formulation**
- **Cartridges fit most 1 to 1 dispensing tools in the market**
- **Meets AC308 and AC58 standards for adhesive anchoring**
- **High load values**
- **Free Quik-Flow nozzle included with each cartridge purchased**
- **Tested for creep resistance**

Pure50+™

Epoxy Injection Adhesive Anchoring System

PACKAGING

Dual (side-by-side) Cartridges
21 fl. oz. (620 mL)
51 fl. oz. (1500 mL)
1:1 mix ratio

STORAGE LIFE & CONDITIONS

Two years in a dry, dark environment with temperature ranging from 41˚F and 95˚F (5˚C to 35˚C)

ANCHOR SIZE RANGE (TYP.)

3/8" to 1-1/4" diameter threaded rod
No. 3 to No. 8 reinforcing bar (rebar)

SUITABLE BASE MATERIALS

Normal-weight concrete
Lightweight concrete

PRODUCT DESCRIPTION

Pure50+ is a two-component adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools and hole cleaning equipment. Pure50+ is designed for bonding threaded rod and reinforcing bar hardware into drilled holes in solid concrete base materials.

GENERAL APPLICATIONS AND USES

- Bonding threaded rod and reinforcing bar into hardened concrete
- Evaluated for installation and use in dry and wet holes
- Can be installed in a wide range of base material temperatures.

FEATURES AND BENFEFITS

- Designed for use with threaded rod and reinforcing bar hardware elements
- Evaluated and recognized for freeze/thaw performance
- Cartridge design allows for multiple uses using extra mixing nozzles
- Mixing nozzles proportion adhesive and provide simple delivery method into drilled holes
- Evaluated and recognized for long term and short term loading (see performance tables for applicable temperature ranges)

APPROVALS AND LISITINGS

Conforms to requirements of ASTM C 881, Types I, II, IV and V, Grade 3, Classes B & C (also meets Type III except for elongation)
Department of Transportation listings – see www.powers.com or contact transportation agency
Tested in accordance with AC308 for use in structural concrete
Evaluated and qualified by an accredited independent testing laboratory for recognition in concrete

GUIDE SPECIFICATIONS

CSI Divisions: 03151- Concrete Anchoring.
Adhesive anchoring system shall be Pure50+ as supplied by Powers Fasteners, Inc., Brewster, NY. Anchors shall be installed in accordance with published instructions and requirements of the Authority Having Jurisdiction.

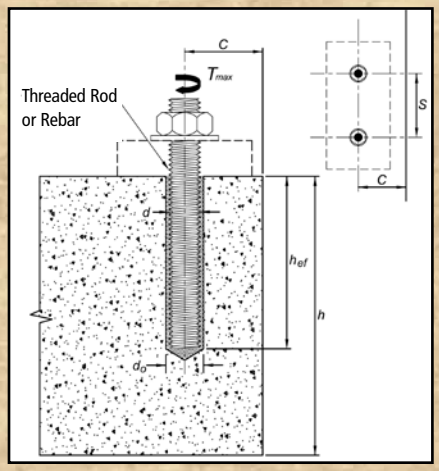
INSTALLATION SPECIFICATIONS

Installation Specifications for Threaded Rod and Reinforcing Bar

Dimension/Property		Notation	Units	Nominal Anchor Size						
Threaded Rod				3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/4"
Reinforcing Bar		-	-	#3	#4	#5	#6	-	#8	
Nominal anchor diameter		d	in. (mm)	0.375 (9.5)	0.500 (12.7)	0.625 (15.9)	0.750 (19.1)	0.875 (31.8)	0.875 (31.8)	1.250 (31.8)
Nominal diameter of drilled hole		d_o, (d_{bit})	in.	7/16 ANSI	9/16 ANSI	3/4 ANSI	7/8 ANSI	1 ANSI	1-1/8 ANSI	1-3/8" ANSI
Minium embedment		$h_{ef,min}$	in. (mm)	2-3/8 (60)	2-3/4 (70)	3-1/8 (79)	3-1/2 (89)	3-1/2 (89)	4 (102)	5 (127)
Maximum embedment		$h_{ef,max}$	in. (mm)	7-1/2 (191)	10 (254)	12-1/2 (318)	15 (381)	17-1/2 (444)	20 (508)	25 (635)
Minimum concrete member thickness		h_{min}	in. (mm)	h_{ef} + 1-1/4 (h_{ef} + 30)		h_{ef} + 2 d_o				
Minimum spacing distance		s_{min}	in. (mm)	1-7/8 (48)	2-1/2 (64)	3-1/8 (79)	3-3/4 (95)	4-3/8 (24)	5 (127)	6-1/4" (159)
Minimum edge distance[1]		c_{min}	in. (mm)	1-3/4 (44)	1-3/4 (44)	1-3/4 (44)	1-3/4 (44)	1-3/4 (44)	1-3/4 (44)	1-3/4" (44)
Maximum torque (only possible after full cure time of adhesive)	A36 or F1554 Grade 36	T_{max}	ft.- lbs. (N-m)	10 (13)	25 (34)	50 (68)	90 (122)	125 (169)	165 (224)	280 (380)
	F593 Condition CW stainless steel rod or ASTM A193 Grade B7 carbon steel rod			15 (21)	33 (45)	60 (81)	105 (142)	125 (169)	125 (169)	125 (169)
Effective cross sectional area of threaded rod		A_{se}	in.^{2}	0.078 (92)	0.142 (92)	0.226 (146)	0.335 (216)	0.462 (298)	0.606 (391)	0.969 (625)
Effective cross sectional area of reinforcing bar		A_{se}	in.^{2} (mm^2)	0.110 (71)	0.200 (129)	0.310 (200)	0.440 (284)		0.790 (510)	

1. For installations between the minimum edge distance and 5 anchor diameters, the tabulated maximum torque must be reduced (multiplied) by a factor of 0.40.

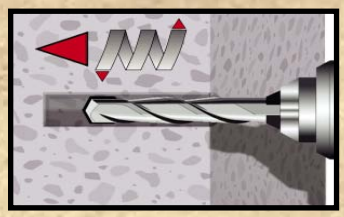
Detail of Steel Hardware Elements used with Injection Adhesive System



Threaded Rod and Deformed Reinforcing Bar Material Properties				
Steel Description (General)	**Steel Specification** (ASTM)	**Nominal Anchor Size** (inch)	**Minimum Yield Strength,** f_y (ksi)	**Minimum Ultimate Strength,** f_u (ksi)
Carbon rod	A 36 or F 1554 and Grade 36	3/8 through 1-1/4	36.0	58.0
Stainless rod (Alloy 304 / 316)	F 593, Condition CW	3/8 through 5/8	65.0	100.0
		3/4 through 1-1/4	45.0	85.0
High strength carbon rod	A 193, Grade B7	3/8 through 1-1/4	105.0	210.0
Grade 60 reinforcing bar	A 615, A 767, or A 996	3/8 through 1-1/4 (#3 through #8)	50.0	90.0
Grade 40 reinforcing bar	A 615	3/8 through 3/4 (#3 through #6)	40.0	70.0

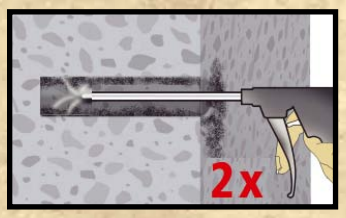
INSTALLATION INSTRUCTIONS FOR SOLID BASE MATERIALS

DRILLING



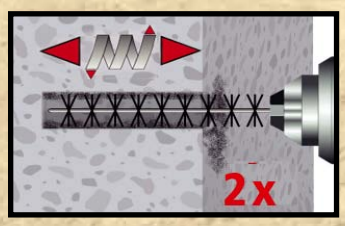
1 - Drill a hole into the base material with a rotary hammer drill tool to the size and embedment required by the selected anchor (reference installation specifications for threaded rod and reinforcing bar). The tolerances of the carbide drill bit should meet the requirements of ANSI Standard B212.15. **Precaution:** Wear suitable eye and skin protection. Avoid inhalation of dusts during drilling and/or removal. **Note!** After drilling and prior to hole cleaning, all standing water in the drilled bore hole must be removed if present (e.g. vacuum, compressed air, etc.)

HOLE CLEANING: BLOW 2x, BRUSH 2x, BLOW 2x

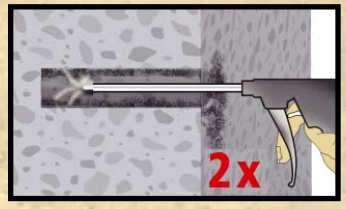


2A - Starting from the bottom or back of the anchor hole, blow the hole clean using a compressed air nozzle (min. 90 psi) a minimum of two times (2x).

- Use a compressed air nozzle (min. 90 psi) for anchor rod 3/8" to 1-1/4" diameter or reinforcing bar (rebar) sizes #3 to #8.



2B - Determine wire brush diameter (reference hole cleaning equipment selection table) and attach the brush with adaptor to a rotary drill tool or battery screw gun. Brush the hole with the selected wire brush a minimum of two times (2x). A brush extension (supplied by Powers Fasteners, Cat. #08282) should be used for holes drilled deeper than the listed brush length. The wire brush diameter should be checked periodically during use. The brush must be replaced if it becomes worn (less than D_{min}, reference hole cleaning equipment selection table) or does not come into contact with the sides of the drilled hole.

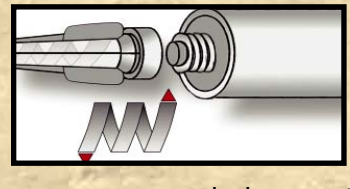


2C - Finally, blow the hole clean again a minimum of two times (2x).

- Use a compressed air nozzle (min. 90 psi) for anchor rod 3/8" to 1-1/4" diameter or reinforcing bar (rebar) sizes #3 to #8.

When finished the hole should be clean and free of dust, debris, ice, grease, oil or other foreign material.

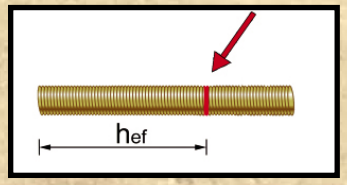
PREPARING



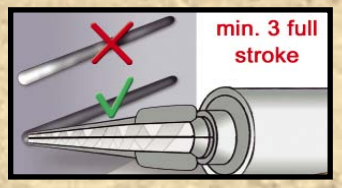
3 - Check adhesive expiration date on cartridge label. Do not use expired product. Review Material Safety Data Sheet (MSDS) before use. Cartridge temperature must be between 50°F - 104°F (10°C - 40°C) when in use. Consideration should be given to the reduced gel time of the adhesive in warm temperatures.

Attach a supplied mixing nozzle to the cartridge. Do not modify the mixer in any way and make sure the mixing element is inside the nozzle. Load the cartridge into the correct dispensing tool.

A new mixing nozzle must be used for every working interruption longer than the published working times (reference gel time and curing time table) as well as for new cartridges.



4 - Prior to inserting the anchor rod or rebar into the filled bore hole, the position of the embedment depth has to be marked on the anchor. Verify anchor element is straight and free of surface damage.



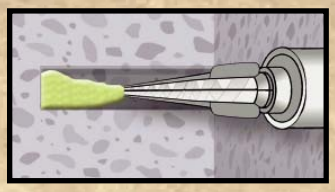
5 - For new cartridges and nozzles: prior to dispensing into the anchor hole, squeeze out separately a minimum three full strokes of the mixed adhesive. Discard non-uniform adhesive until the mixed adhesive shows a consistent **gray** color.

Review and note the published working and cure times (reference gel time and curing time table) prior to injection of the mixed adhesive into the cleaned anchor hole.

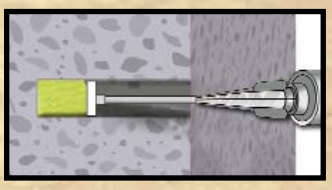
Installation Instructions For Solid Base Materials Continue On Next Page

INSTALLATION INSTRUCTIONS FOR SOLID BASE MATERIALS, CONTINUED

INSTALLATION



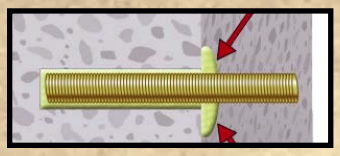
6 - Fill the cleaned hole approximately two-thirds full with mixed adhesive starting from the bottom or back of the anchor hole. Slowly withdraw the mixing nozzle as the hole fills to avoid creating air pockets or voids. For embedment depth greater than 7-1/2" an extension nozzle (3/8" dia.) must be used with the mixing nozzle.



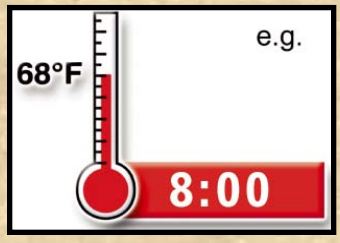
Piston plugs (see Adhesive Piston Plug Table) must be used with and attached to mixing nozzle and extension tube for horizontal and overhead installations with anchor rod from 3/4" to 1-1/4" diameter and rebar sizes #6 to #8. Insert piston plug to the back of the drilled hole and inject as described in the method above.

During installation the piston plug will be naturally extruded from the drilled hole by the adhesive pressure.
Attention! Do not install anchors overhead without proper training and installation hardware provided by Powers Fasteners. Contact Powers for details prior to use.

7 - The anchor should be free of dirt, grease, oil or other foreign material. Push clean threaded rod or reinforcing bar into the anchor hole while turning slightly to ensure positive distribution of the adhesive until the embedment depth is reached. Observe the gel (working) time.



8 - Be sure that the anchor is fully seated at the bottom of the hole and that some adhesive has flowed from the hole and all around the top of the anchor. If there is not enough adhesive in the hole, the installation must be repeated. For overhead applications the anchor must be secured from moving/falling during the cure time (e.g. wedges). Minor adjustments to the anchor may be performed during the gel time but the anchor shall not be moved after final placement and during cure.



9 - Allow the adhesive anchor to cure to the specified full curing time prior to applying any load (reference gel time and curing time table).

Do not disturb, torque or load the anchor until it is fully cured.

10 - After full curing of the adhesive anchor, a fixture can be installed to the anchor and tightened up to the maximum torque (reference gel time and curing time table) by using a calibrated torque wrench.

Take care not to exceed the maximum torque for the selected anchor.

INSTALLATION REFERENCE TABLES

Installation Specifications for Threaded Rod and Reinforcing Bar

Gel (working) Time and Curing Table

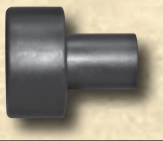
Temperature of Base Material		Gel (Working) Time	Full Curing Time
˚F	˚C		
50	10	90 minutes	24 hours
68	20	25 minutes	8 hours
77	25	20 minutes	8 hours
86	25	15 minuets	6 hours
104	40	12 minutes	4 hours

Hole Cleaning Equipment Selection Table for Pure50+

Threaded Rod Diameter (Inch)	Rebar Size (No.)	ANSI Drill Bit Diameter (Inch)	Min. Brush Diameter, Dmin (Inches)	Brush Length, L (Inches)	Steel Wire Brush (Cat. #)	Blowout Tool	Number Of Cleaning Actions
3/8	#3	7/16	0.475	6-3/4	08284	Compressed air nozzle only (min. 90 psi)	2x blowing 2x brushing 2x blowing
1/2	#4	9/16	0.600	6-3/4	08285		
5/8	#5	11/16	0.735	7-7/8	08286		
		3/4	0.790	7-7/8	08278		
3/4	#6	7/8	0.920	7-7/8	08288		
7/8	-	1	1.045	11-7/8	08287		
1	#8	1-1/8	1.175	11-7/8	08289		
1-1/4	-	1-3/8	1.425	11-7/8	08290		

An SDS-Plus adaptor (Cat. #08283) or Jacobs chuck style adaptor (Cat. #08296) is required to attach a steel wire brush to the drill tool.

Adhesive Piston Plugs

Threaded Rod Diameter (Inch)	Rebar Size (No.)	ANSI Drill Bit Diameter (Inch)	Plug Size (Inch)	Plastic Plug (Cat. #)	Horiz. & Overhead Installations
3/4	#6	7/8	7/8	08300	
7/8	#7	1	1	08301	
1	#8	1-1/8	1-1/8	08303	
1-1/4	-	1-3/8	1-3/8	08305	

A plastic extension tube (Cat# 08281) must be used with piston plugs.

ULTIMATE AND ALLOWABLE LOAD CAPACITIES FOR PURE50+

Installed with Threaded Rod into Normal Weight Concrete (based on bond strength/concrete capacity)[1,2,3,4,5,6,7]

Threaded Rod Diameter in.	Drill Bit Diameter d_{bit} in.	Minimum Embedment Depth h_{ef} in.	Minimum Concrete Compressive Strength			
			3,000 psi		4,000 psi	
			Ultimate Tension Load Capacity (lbs.)	Allowable Tension Load Capacity (lbs.)	Ultimate Tension Load Capacity (lbs.)	Allowable Tension Load Capacity (lbs.)
3/8	7/16	3-3/8	9,725	2,125	9,725	2,430
1/2	9/16	4-1/2	15,240	3,810	17,745	4,435
5/8	11/16 or 3/4	5-5/8	22,870	5,720	28,200	7,050
3/4	7/8	6-3/4	31,765	7,940	36,470	9,120
7/8	1	7-7/8	39,615	9,905	45,745	11,435
1	1-1/8	9	38,695	9,925	66,950	16,740
		10	56,665	15,005	69,305	17,325
1-1/4	1-3/8	11-1/4	76,985	19,245	88,895	22,225

1. Allowable load capacities listed are calculated using an applied safety factor of 4.0. Consideration of safety factors of 10 or higher may be necessary depending on the application, such as life safety or overhead.
2. Linear interpolation may be used to determine allowable loads for intermediate embedments and compressive strengths.
3. The tabulated load values are applicable to single anchors installed at critical edge and spacing distances and where the minimum member thickness is 2.5 times the embedment depth.
4. The tabulated load values are for applicable for dry concrete. Holes must be drilled with a hammer drill and an ANSI carbide drill bit. Installations in wet concrete or in water-filled holes may require a reduction in capacity. Contact Powers Fasteners for more information concerning these installation conditions.
5. Adhesives experience reductions in capacity at elevated temperatures. See the in-service temperature chart for allowable load capacities.
6. Allowable bond strength/concrete capacity must be checked against allowable steel strength in tension to determine the controlling allowable load.
7. Allowable shear capacity is controlled by allowable steel strength for the given conditions.

Installed with Reinforcing Bar into Normal Weight Concrete (based on bond strength/concrete capacity)[1,2,3,4,5,6,7]

Bar Diameter d in.	Drill Bit Diameter d_{bit} in.	Minimum Embedment Depth h_{ef} in.	Minimum Concrete Compressive Strength			
			3,000 psi		4,000 psi	
			Ultimate Tension Load Capacity (lbs.)	Allowable Tension Load Capacity (lbs.)	Ultimate Tension Load Capacity (lbs.)	Allowable Tension Load Capacity (lbs.)
#3	7/16	3-3/8	9,950	2,490	9,950	2,490
#4	9/16	4-1/2	16,340	4,085	18,045	4,510
#5	11/16 or 3/4	4	16,405	5,740	16,670	4,170
		5-5/8	22,955	7,425	23,345	6,335
#6	7/8	6-3/4	26,690	7,425	35,930	8,985
#7	1-1/8	9	48,465	12,115	62,270	16,320

1. Allowable load capacities listed are calculated using an applied safety factor of 4.0. Consideration of safety factors of 10 or higher may be necessary depending on the application, such as life safety or overhead.
2. Linear interpolation may be used to determine allowable loads for intermediate embedments and compressive strengths.
3. The tabulated load values are applicable to single anchors installed at critical edge and spacing distances and where the minimum member thickness is 2.5 times the embedment depth.
4. The tabulated load values are for applicable for dry concrete. Holes must be drilled with a hammer drill and an ANSI carbide drill bit. Installations in wet concrete or in water-filled holes may require a reduction in capacity. Contact Powers Fasteners for more information concerning these installation conditions.
5. Adhesives experience reductions in capacity at elevated temperatures. See the in-service temperature chart for allowable load capacities.
6. Allowable bond strength/concrete capacity must be checked against allowable steel strength in tension to determine the controlling allowable load.
7. Allowable shear capacity is controlled by allowable steel strength for the given conditions.

ALLOWABLE LOAD CAPACITIES FOR PURE50+

Installed into Uncracked Normal-Weight Concrete with Threaded Rod and Reinforcing Bar (Based on Steel Strength)[1,2,3,4,5,6,7]

Nominal Rod Diameter or Rebar Size (in. or #)	Minimum Concrete Compressive Strength									
	A36 or F1554 Grade 36		A193, Grade B7		F 593, CW (SS)		Grade 60 Rebar		Grade 40 Rebar	
	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)
3/8 or #3	2,115	1,090	4,375	2,225	3,630	1,870	2,655	1,320	2,210	1,310
1/2 or #4	3,755	1.940	7,775	4,055	6,470	3,330	4,710	2,345	3,925	2,380
5/8 or #5	5,870	3,025	12,150	6,260	10,130	5,210	7,370	3,670	6,135	3,690
3/4 of #6	8,455	4,355	17,495	9,010	12,400	6,390	10,590	5,285	8,835	5,235
7/8 or #7	11,510	5,930	23,810	12,265	16,860	8,680	14,425	7,195	12,025	7,140
1 or #8	15,035	7,745	31,100	16,020	22,020	11,340	18,840	9,400	15,708	9,400
1-1/4	23,485	12,100	48,560	25,035	34,420	17,780				

1. Allowable load capacities listed are calculated for the steel element type. Consideration of applying additional safety factors may be necessary depending on the application, such as life safety or overhead.
2. The tabulated load values are applicable to single anchors at critical edge and spacing distances and where the minimum member thickness is 2.5 times the embedment depth.
3. The tabulated load values are for dry concrete. Holes must be drilled with a hammer drill and an ANSI carbide drill bit. Installation in wet concrete or installations in water-filled holes may require a reduction in capacity. Contact Powers Fasteners for more information concerning these installation conditions.
4. Allowable shear capacity is controlled by steel strength for the given conditions.
5. Allowable steel strength in tension must be checked against allowable bond strength/concrete capacity in tension to determine the controlling allowable load.

In-Service Temperature Chart For Allowable Load Capacities[1]		
Temperature of Base Material		Reduction Factor For Temperature
°F	°C	
32	0	0.89
50	5	1.00
70	10	1.00
110	20	1.00
130	30	0.82
150	40	0.73
180	50	0.48

Pure50+™

ORDERING INFORMATION+

Pure 50+ Cartridges

Cat. No.	Description	Std. Carton	Pallet
08605	Pure50+ 21 fl. oz. cartridge	12	540
08651	Pure50+ 51 fl. oz. cartridge	8	216

One Pure50+ mixing nozzle is packaged with each cartridge.
Pure50+ mixing nozzles must be used to ensure complete and proper mixing of the adhesive.

Cartridge System Mixing Nozzles

Cat. No.	Description	Std. Pack/ Box	Std. Carton
08294	Extra mixing nozzle (with an 8" extension) for Pure50+	12	540
08281	Mixing nozzle extension, 8" minimum	8	216

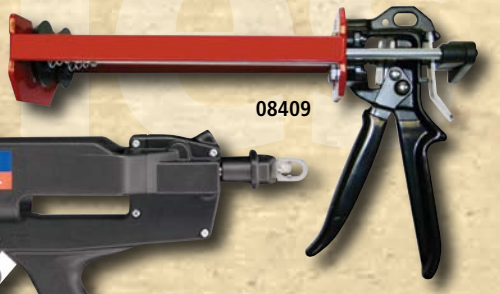
Dispensing Tools for Injection Adhesive

Cat. No.	Description	Std. Box	Std. Carton
08409	21 fl. oz. Standard metal manual tool	1	10
08421	21 fl. oz. High performance manual tool	1	10
08442	21 fl. oz. Battery powered tool (cordless)	1	-
08459	21 fl. oz. Pneumatic tool	1	-
08438	51 fl. oz. Pneumatic tool	1	-

08651

08605

08294



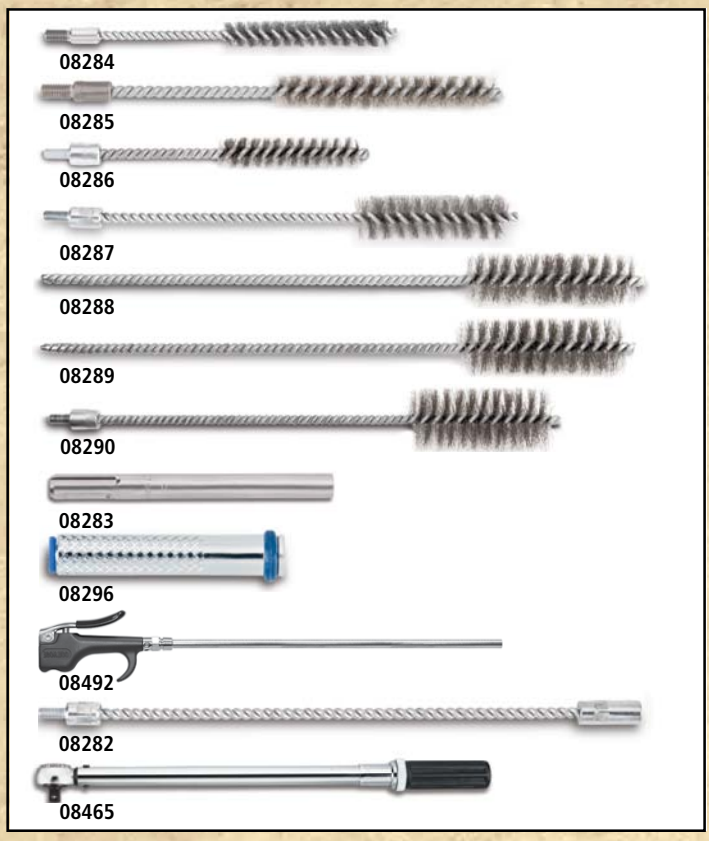
08409

08421

08438

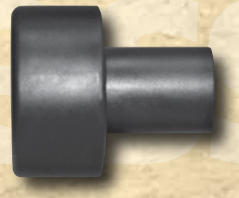
08442

ORDERING INFORMATION+



Hole Cleaning Tools and Accessories

Cat. No.	Description	Std. Pkg
08284	Wire brush for 7/16"ANSI hole (3/8" rod or #3 rebar)	1
08285	Wire brush for 9/16"ANSI hole (1/2" rod or #4 rebar)	1
08286	Wire brush for 11/16"ANSI hole (5/8" rod or #5 rebar)	1
08327	Wire brush for 3/4"ANSI hole (1/2" rod or #4 rebar)	1
08287	Wire brush for 7/8"ANSI hole (3/4" rod or #6 rebar)	1
08288	Wire brush for 1"ANSI hole (7/8" rod)	1
08289	Wire brush for 1-1/8"ANSI hole (1" rod or # 8 rebar)	1
08290	Wire brush for 1-3/8"ANSI hole (1-1/4" rod)	1
08283	SDS-Plus adapter for steel brushes	1
08296	Standard drill adapter for steel brushes (e.g. Jacobs Chuck)	1
08282	Steel brush extension, 12"	1
08492	Air compressor nozzle with extension	1
08465	Adjustable torque wrench with 1/2" square drive (10 to 150 ft.-lbs.)	1
08466	Adjustable torque wrench with 1/2" square drive (25 to 250 ft.-lbs.)	1



Adhesive Pistons

Cat. No.	Description	ANSI Drill Dia.	Threaded Rod Size	Reinforcing Bar Size	Std. Bag	Std. Carton
08300	7/8" Plug	7/8"	3/4"	#6	10	100
08301	1" Plug	1"	7/8"	#7	10	100
08303	1-1/8" Plug	1-1/8"	1"	#8	10	100
08305	1-3/8" Plug	1-3/8"	1-1/4"	-	10	100

POWERS FASTENERS **BRANCH INFORMATION**

USA LOCATIONS

CITY	ADDRESS	CONTACT	PHONE	FAX
Alabama	5405 Buford Hwy Suite 410 Norcross, GA 30071-3984	Jeff Hatchett	205-520-6044	678-966-9242
Atlanta	5405 Buford Hwy Suite 410 Norcross, GA 30071-3984	Ryan Raica	678-966-0000	678-966-9242
Boston	2 Powers Lane, Brewster, NY 10509	Jack Armour	800-524-3244	914-576-6483
Charlotte	349 L West Tremont Avenue, Charlotte, NC 28203	Bob Aurisy	704-375-5012	704-376-5517
Chicago	2472 Wisconsin Avenue, Downers Grove, IL 60515	Dan Gilligan	630-960-3156	630-960-3912
Dallas	10625 King Williams Drive, Dallas, TX 75220	Matt Henderson	972-506-9258	972-506-9290
Denver	2475 West Second Street #35, Denver, CO 80223	Jared Hemmert	303-922-9202	303-922-9228
Detroit	21600 Wyoming Avenue, Oak Park, MI 48237	Glen Gaskill	248-543-8600	248-543-8601
Florida	2412 Lynx Lane, Orlando, FL 32804	John Christy	813-626-4500	813-626-4545
Houston	13833 North Promenade, Suite 100, Stafford, TX 77477	Chris Salisbury	281-491-0351	281-491-0367
Indianapolis	15290 Stony Creek Way, Noblesville, IN 46060	Bill Trainor	317-773-1668	317-773-1690
Kansas City / St Louis	716 East 16th Avenue, North Kansas City, MO 64116	Don James, Jr.	816-472-5038	816-472-5040
Los Angeles	2761 Dow Avenue, Tustin, CA 92780	Jack Stewart	714-731-2500	714-731-2566
Maryland	3137-B Pennsy Drive, Landover, MD 20785	Chris Van Syckle	301-773-1722	301-341-5119
Milwaukee	12020 W. Feerick Street, Milwaukee, WI 53222	Donn Raduenz	414-466-2400	414-466-3993
Minneapolis	351 Wilson Street, NE Minneapolis, MN 55413	Josh Nelson	612-644-3047	612-331-3549
Nashville/Memphis	221 Blanton Avenue, Nashville, TN 37210	Ira Liss	615-248-2667	615-248-2676
New Orleans	102 Sampson Street, Houston, TX 77003	Cal Zenor	713-228-1524	713-228-1528
New York	2 Powers Lane, Brewster, NY 10509	John Partridge	914-235-6300	914-576-6483
Philadelphia	2 Powers Lane, Brewster, NY 10509	Greg Stephenson	800-524-3244	914-576-6483
Phoenix	3602 E. Southern Ave, Suite 5 Phoenix, AZ 85040	Craig Hering	602-431-8024	602-431-8027
Pittsburgh	1360 Island Avenue, Mckees Rocks, PA 15136	Bill Dugan	412-771-3010	412-771-9858
Portland	129 South Kenyon, Seattle, WA 98108	Jim Swink	360-608-6845	206-762-5817
Rochester	40 Harrison Street, Rochester, NY 14605	Mike Kolstad	585-288-2080	585-288-8732
Salt Lake City	2212 SW Temple #20, Salt Lake City, UT 84115	Don Manning	801-466-9428	801-466-3083
San Francisco	28970 Hopkins Street, Suite B+C, Hayward, CA 94545	John O'Brian	510-293-1500	510-293-1505
Seattle	129 South Kenyon, Seattle, WA 98108	Darin Arnold	206-762-5812	206-762-5817

INTERNATIONAL LOCATIONS

COUNTRY/REGION	ADDRESS	CONTACT	PHONE	FAX
Australia	Factory 3, 205 Abbotts Road, Dandenong, South Victoria 3175	Phil Rose	+61 3 8787 5888	+61 3 8787 5899
Canada	6950 Edwards Blvd. Mississauga, Ontario L5T 2W2	Mark Russell	905-673-7295	905-673-6490
China	Metropolitan Business Centre, East Nandan Road, Lane 300, No. 9, Room 604 Xuhui District, Shanghai, China 200030	Jake Olsen	+86-21-3363-2880	+86-21-3363-2881
Europe	Westrak 208, 1771 SV Wieringerwerf, Netherlands	Paul Geuvers	+31 888 769 377	+31 227 594 759
India	D-112, Twin Arcade, Military Rd., Marol, Andheri, East Mumbai, 400059	Ajay Kulkarni	91-22-401591304	
Manitoba	1810 Dublin Avenue Man. Winnipeg, R3H 0H3	Distributor	204-633-0064	204-694-1261
New Zealand	PO Box 302 076 North Harbour Auckland	Claye Sesto	+64 9415 2425	+64 9415 2627
Quebec	721 Meloche Avenue, Dorval, Quebec H9P 2S5	Alan Hill	514-631-4216	514-631-2583
Thailand	80/89 MOO4 Petchakasem Road, Bangkae Bangkok 10160	Chalee Surakavanichakorn	+661 826 5821	

LATIN & CARIBBEAN DISTRIBUTION INQUIRIES

COUNTRY/REGION	ADDRESS	CONTACT	PHONE	FAX
Latin America		Alan Hebert	01150767477749	914-576-6483

LATIN & CARIBBEAN DISTRIBUTION

COUNTRY/REGION	ADDRESS	CONTACT	PHONE	FAX
Brazil	HARD, Rua Dr. Humberto Pinheiro Viera, 150 Lote B, 1 B Distrito Industrial, Joinville, Brazil		55-47-40097209	55-47-40097217
Colombia	Electrogeno, S.A., Carrera 52 #71c-38, Bogota, Colombia		(57) 1 6600 9436	
Costa Rica	Electro Mechanics Supply, La Uruca Contiguo Banco Ntnl., De Costa Rica Condominio, Horizontal Bodega #9, San Jose, Costa Rica		(506) 2233-2595	
Dominican Republic	Calle Estancia Nueva #17 E Esquina Cul-De-Sac 9, San Geronimo, Santo Domingo	Rodfor Team	809-224-5615	809-472-8640
Ecuador	Acero Comercial Ecuatoriano S.A., Av. La Prensa N45-14 y Telégrafo 1 – Quito Av. Juan Tanca Marengo Km. 1.7 – Guayaquil	infouio@acerocomercial.com infogye@acerocomercial.com	(593-2) 2454 333 (593-4) 2683 060	(593-2) 2454 455 (593-4) 2683 059
Guatemala	Tecnofijaciones, 6 Avenue 8-56 Zona 9, Zona 9, Guatemala	Oscar Lucas Penagos	502-233-4-3478	
Panama	Centro-Industrial, Via Cincuentenario, No. 7910, Ciudad Panama, Panama		(507) 302-8022	
Peru	Powers Peruana SAC, Av. Santa Catalina, 555 La Victoria, Lima 13, Peru (www.powersperuana.com)	Martin Vasquez	(011) 511 265 8500	(011) 511 330 0909
Venezuela	Calle Sucre/Qta. Maudora, #1721 Entre Cec Acosta Y San Ignacio Chacao, Caracas	Distributor	58 212 264 1313	58 212 263 0219
Trinidad - Tobago	Ft. Farfan, 3-5 Ibis Avenue, Ibis Acres, San Juan	Derek Cumming	(868) 674-7896	

Note: The information and data contained within this documentation was current as of March 2012. The information is for marketing purposes only and is subject to change and updates as needed. Powers Fasteners, Inc. reserves the right to change designs and specifications without notice or liability for such changes. Please contact Powers Fasteners for the most current and up to date available information or refer to our website at www.powers.com

Powers Fasteners 2 Powers Lane, Brewster, NY 10509 P: (914) 235-6300 F:(914) 576-6483
Powers Fasteners Canada Ltd. 6950 Edwards Boulevard Mississauga Ontario L5T-2W2 Canada
P: (905) 673-7295 or 1-800-387-3480 F: (905) 673-6490

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