

State of Louisiana
Department of Transportation and Development

Qualified Product List 40

CONCRETE ANCHOR SYSTEMS*

PRODUCT SOURCE CODE	PRODUCT	BOLT SIZE mm (in)	MINIMUM EMBEDMENT mm (in)	WORKING LOADS		SOURCE
				PULL-OUT kN (lbs)	SHEAR kN (lbs)	
(A) MECHANICAL ANCHOR BOLT SYSTEM						
4015	Maxi-Bolt	6.35 (¼)	50.8 (2)	17.1 (1600)	3.7 (830)	Drillco Devices, Ltd. 10-05 35 th Avenue Long Island, NY 11106
		9.53 (⅜)	88.9 (3½)	17.0 (3902)	9.0 (2026)	
		12.7 (½)	152.4 (6)	31.6 (7100)	16.4 (3690)	
		15.87 (⅝)	190.5 (7½)	50.3 (11305)	26.1 (5870)	
		19.05 (¾)	235 (9¼)	74.3 (16710)	38.6 (8680)	
		25.4 (1)	317 (12½)	134.8 (30315)	70.0 (15750)	
31.75 (1¼)	406 (16)	222.3 (50015)	115.5 (25980)			
4016	Molly Parabol Stud	12.7 (½)	57.2 (2¼)	5.1 (1150)	8.2 (1840)	Emhart Fasteners Group Threaded Fastener Division (Molly Plant) 504 Mt. Laurel Avenue Temple, PA 19560
		15.87 (⅝)	69.8 (2¾)	8.6 (1940)	15.0 (3375)	
		19.05 (¾)	82.6 (3¼)	14.3 (3225)	24.2 (5440)	
		22.2 (7/8)	101.6 (4)	20.8 (4690)	33.3 (7500)	
		25.4 (1)	114.3 (4½)	25.6 (5750)	43.7 (9825)	
		31.75 (1¼)	139.7 (5½)	38.9 (8750)	70.6 (15875)	
4019	Kwik Bolt Stud	12.7 (½)	57.2 (2¼)	6.1 (1380)	9.2 (2080)	Hilti, Inc. 5400 S. 122 nd East Avenue Tulsa, OK 74146
		15.87 (⅝)	69.8 (2¾)	7.3 (1650)	12.8 (2890)	
		19.05 (¾)	82.6 (3¼)	11.3 (2540)	19.0 (4280)	
		25.4 (1)	114.3 (4½)	17.8 (4000)	29.9 (6720)	
		31.75 (1¼)	139.7 (5½)	25.6 (5750)	39.7 (8920)	
4053	Kwik Bolt 3	6.4 (¼)	29 (1⅞)	1.8 (404)	2.2 (499)	
		9.5 (⅜)	41 (1⅝)	4.6 (1025)	5.9 (1332)	
		12.7 (½)	57 (2¼)	6.8 (1519)	11.4 (2565)	
		15.9 (⅝)	70 (2¾)	9.2 (2071)	17.0 (3816)	
		19.1 (¾)	83 (3¼)	11.4 (2561)	23.8 (5353)	
		25.4 (1)	114 (4½)	19.5 (4375)	33.9 (7625)	
4033	Trubolt Wedge	6.35 (¼)	28.6 (1⅞)	1.7 (390)	2.0 (457)	ITW Ramset/Red Head 1300 North Michael Drive Wood Dale, IL 60191
		9.53 (⅜)	38.1 (1½)	3.6 (805)	4.5 (1007)	
		12.7 (½)	57.15 (2¼)	6.0 (1346)	7.7 (1725)	
		15.87 (⅝)	69.85 (2¾)	8.9 (2000)	13.9 (3120)	
		19.05 (¾)	82.55 (3¼)	11.0 (2480)	20.1 (4532)	
		22.2 (7/8)	95.25 (3¾)	15.2 (3418)	28.0 (6280)	
		25.4 (1)	114.3 (4½)	23.2 (5218)	31.6 (7108)	
		31.75 (1¼)	139.7 (5½)	30.2 (6792)	49.3 (11096)	

PRODUCT SOURCE CODE	PRODUCT	BOLT SIZE mm (in)	MINIMUM EMBEDMENT mm (in)	WORKING LOADS		SOURCE	
				PULL-OUT kN (lbs)	SHEAR kN (lbs)		
(A) MECHANICAL ANCHOR BOLT SYSTEM (continued)							
4056	Kingpin Wedge Anchor	6.35 (1/4)	44.4 (1 3/4)	2.7 (602)	1.8 (396)	Porteous Fasteners Co. 1040 Watson Center Road Carson, CA 90745	
		9.53 (3/8)	76.2 (3)	6.3 (1413)	5.7 (1284)		
		12.7 (1/2)	101.6 (4)	9.9 (2235)	10.4 (2344)		
		15.9 (5/8)	127 (5)	17.3 (3897)	14.4 (3232)		
		19.05 (3/4)	146 (5 3/4)	20.3 (4562)	18.9 (4262)		
		22.2 (7/8)	152 (6)	20.5 (4602)	22.5 (5058)		
		25.4 (1)	178 (7)	30.9 (6957)	31.29 (6900)		
31.75 (1 1/4)	190 (7 1/2)	29.7 (6682)	48.40 (10672)				
4064	Power-Stud Wedge Expansion Anchor	9.53 (3/8)	41.3 (1 5/8)	4.9 (1100)	5.1 (1140)	Powers Fasteners 2 Powers Lane Brewster, NY 10509	
		12.7 (1/2)	57.2 (2 1/4)	6.8 (1530)	10.2 (2300)		
		15.9 (5/8)	69.8 (2 3/4)	8.1 (1830)	14.5 (3255)		
		19.05 (3/4)	85.7 (3 3/8)	12.2 (2755)	19.6 (4410)		
4031	S-7 Spin-Lock Concrete Anchor	12.7 (1/2)	95.2 (3 3/4)	7.0 (1565)	9.3 (2100)	Williams Form Engineering Corporation P. O. Box 7389 Grand Rapids, MI 49150	
		19.05 (3/4)	133 (5 1/4)	18.9 (4250)	22.2 (5000)		
		25.4 (1)	184 (7 1/4)	27.8 (6250)	40.0 (9000)		
		31.7 (1 1/4)	197 (7 3/4)	27.8 (6250)	64.5 (14500)		
		41.3 (1 5/8)	317.5 (12 1/2)	83.3 (18750)	105.8 (23800)		
		44.4 (1 3/4)	317.5 (12 1/2)	83.3 (18750)	126.7 (28500)		
		50.8 (2)	406 (16)	150.0 (33750)	176.5 (39700)		
PRODUCT SOURCE CODE	PRODUCT	SYSTEM SIZE mm (in)	APPROX CURE TIME	MINIMUM EMBED. mm (in)	WORKING LOADS		SOURCE
					PULL-OUT kN (lbs)	SHEAR kN (lbs)	
(B) CARTRIDGE SYSTEMS**							
4017	Parabound Capsule Anchor System	9.53 (3/8)	30 min. @ 22° C (72° F)	88.9 (3 1/2)	6.8 (1525)	4.5 (1015)	Emhart Fasteners Group (Molly Plant)
		12.7 (1/2)		108 (4 1/4)	11.1 (2505)	7.6 (1705)	
		15.9 (5/8)		127 (5)	18.9 (4255)	13.3 (2995)	
		19.05 (3/4)		168 (6 5/8)	29.4 (6605)	23.2 (5230)	
		25.4 (1)		210 (8 1/4)	44.3 (9960)	33.2 (7475)	
		31.7 (1 1/4)		260 (10 1/4)	68.9 (15495)	55.6 (12285)	

PRODUCT SOURCE CODE	PRODUCT	SYSTEM SIZE mm (in)	APPROX CURE TIME	MINIMUM EMBED. mm (in)	WORKING LOADS		SOURCE
					PULL-OUT kN (lbs)	SHEAR kN (lbs)	
(B) CARTRIDGE SYSTEMS (continued)							
4020	HVA Adhesive Anchor System	9.53 (3/8)	10 min. @ 20° C (68° F)	88.9 (3 1/2)	5.7 (1290)	4.8 (1070)	Hilti, Inc.
		12.7 (1/2)		108 (4 1/4)	11.6 (2620)	9.3 (2090)	
		15.87 (5/8)		127 (5)	18.5 (4160)	13.3 (3000)	
		19.05 (3/4)		168 (6 5/8)	24.2 (5450)	21.3 (4800)	
		22.2 (7/8)		168 (6 5/8)	32.0 (7210)	28.2 (6350)	
		25.4 (1)		210 (8 1/4)	39.8 (8960)	33.9 (7630)	
4021	HEA Adhesive Capsule	9.53 (3/8)	10 min. @ 20° C (68° F)	88.9 (3 1/2)	40.3 (9070)	4.8 (1070)	Hilti, Inc.
		12.7 (1/2)		108 (4 1/4)	55.4 (12470)	9.3 (2090)	
		15.87 (5/8)		127 (5)	84.5 (19010)	13.3 (3000)	
		19.05 (3/4)		168 (6 5/8)	121.0 (27230)	21.3 (4800)	
		22.2 (7/8)		168 (6 5/8)	142.5 (32050)	28.2 (6350)	
		25.4 (1)		210 (8 1/4)	204.8 (46070)	33.9 (7630)	
4038	HY 150	9.53 (3/8)	25 min. @ 30° C (86° F)	88.9 (3 1/2)	11.5 (2588)	6.9 (1552)	Hilti, Inc.
		12.7 (1/2)		108 (4 1/4)	20.4 (4600)	12.3 (2760)	
		15.87 (5/8)		127 (5)	32.0 (7190)	19.2 (4315)	
		19.05 (3/4)		168 (6 5/8)	46.0 (10355)	27.6 (6212)	
		22.2 (7/8)		190 (7 1/2)	62.6 (14092)	37.6 (8456)	
		25.4 (1)		210 (8 1/4)	81.8 (18408)	49.1 (11045)	
4037	Chem-Stud	9.53 (3/8)	30 min. @ 10-20° C (50-68°F)	88.9 (3 1/2)	87 (1955)	7.2 (1620)	Powers Fasteners
		12.7 (1/2)		114 (4 1/2)	14.9 (3359)	12.4 (2780)	
		15.9 (5/8)		127 (5)	22.9 (5146)	19.6 (4413)	
		19.05 (3/4)		168 (6 5/8)	30.4 (6850)	30.4 (6846)	
		22.2 (7/8)		178 (7)	39.0 (8773)	40.1 (9016)	
		25.4 (1)		210 (8 1/4)	53.1 (11950)	59.1 (13284)	
		31.75 (1 1/4)		260 (10 1/4)	77.9 (17525)	75.6 (17000)	
		34.9 (1 3/8)		260 (10 1/4)	82.2 (18500)	91.1 (20500)	
38.1 (1 1/2)	260 (10 1/4)	86.7 (19500)	105 (23625)				
4040	Hammer-Capsule	9.53 (3/8)	60 min. @ 20° C & over (68°F & over)	88.9 (3 1/2)	10.2 (2295)	7.2 (1620)	Powers Fasteners
		12.7 (1/2)		107.9 (4 1/4)	14.3 (3225)	12.4 (2780)	
		15.9 (5/8)		127 (5)	20.8 (4675)	19.6 (4413)	
		19.05 (3/4)		152.4 (6)	29.1 (6543)	30.4 (6846)	
		22.2 (7/8)		177.8 (7)	38.3 (8615)	40.1 (9016)	
		25.4 (1)		209.5 (8 1/4)	49.2 (11060)	59.1 (13284)	
4030	Sup-R-Set Capsule Anchor System	9.53 (3/8)	30 min. @ 22° C (72°F)	88.9 (3 1/2)	7.0 (1570)	4.4 (1000)	U.S.E. Diamond, Inc, P. O. Box 1589 500 State Street York, PA 17405
		12.7 (1/2)		114 (4 1/2)	12.9 (2895)	8.1 (1830)	
		15.87 (5/8)		139.7 (5 1/2)	21.3 (4790)	13.1 (2940)	
		19.05 (3/4)		165 (6 1/2)	27.1 (6095)	19.2 (4315)	
		22.2 (7/8)		190 (7 1/2)	34.1 (7680)	27.0 (6085)	
		25.4 (1)		190 (7 1/2)	38.7 (8705)	32.4 (7280)	
		31.75 (1 1/4)		190 (7 1/2)	56.7 (12755)	53.2 (11975)	

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					PULL-OUT kN (lbs)	SHEAR kN (lbs)		
(C) INJECTION SYSTEMS** (Anchor studs are not included with the system)								
4051	Ultra Bond Speed Set II	9.5 (3/8)	(Refer to product data)	44.4 (1 3/4)	4.8 (1086)	10.0 (2238)	Adhesives Technology Corp. 450 East Copans Road Pompano Beach, FL 33064	
		12.7 (1/2)		54.0 (2 1/8)	13.4 (3019)			17.6 (3946)
		15.9 (5/8)		63.5 (2 1/2)	14.8 (3331)			25.2 (5654)
		19.1 (3/4)		85.7 (3 3/8)	19.4 (4359)			35.6 (8008)
		22.2 (7/8)		95.3 (3 3/4)	27.8 (6241)			46.1 (10363)
4057	Ultrabond 1300	9.5 (3/8)	(Refer to product data)	88.9 (3 1/2)	11.3 (2531)	7.8 (1759)		
		12.7 (1/2)		114.3 (4 1/2)	16.1 (3628)			11.5 (2595)
		15.9 (5/8)		142.9 (5 5/8)	23.0 (5172)			20.1 (4514)
		19.1 (3/4)		171.5 (6 3/4)	29.9 (6716)			28.6 (6433)
		22.2 (7/8)		200 (7 7/8)	38.1 (8582)			34.9 (7852)
4058	Ultrabond 2300	9.5 (3/8)	(Refer to product data)	88.9 (3 1/2)	10.8 (2342)	7.8 (1759)		
		12.7 (1/2)		114.3 (4 1/2)	16.3 (3678)			11.5 (2595)
		15.9 (5/8)		142.9 (5 5/8)	25.0 (5615)			20.1 (4514)
		19.1 (3/4)		171.5 (6 3/4)	33.6 (7552)			28.6 (6433)
		22.2 (7/8)		200 (7 7/8)	44.7 (10057)			34.9 (7852)
4070	Hilti HTE 50	9.53 (3/8)	(Refer to product data)	85.7 (3 3/8)	9.8 (2195)	7.8 (1770)	Hilti, Inc.	
		12.7 (1/2)		114.3 (4 1/2)	18.0 (4055)			13.6 (3055)
		15.9 (5/8)		142.9 (5 5/8)	27.8 (6250)			25.8 (5795)
		19.1 (3/4)		171.5 (6 3/4)	43.5 (9785)			35.4 (7965)
		22.2 (7/8)		200 (7 7/8)	52.1 (11725)			38.9 (8740)
4070	Hilti HTE 50	25.4 (1)	(Refer to product data)	228.6 (9)	73.6 (16565)	61.1 (13730)	Hilti, Inc.	
		31.75 (1 1/4)		285.8 (11 1/4)	83.9 (18870)			81.6 (18355)
4018	Molly Parafast	(Refer to product data)					Emhart Fasteners Group (Molly Plant)	
4022	Hilti Hit C-100	(Refer to product data)					Hilti, Inc.	

PRODUCT SOURCE CODE	PRODUCT	BOLT SIZE mm (in)	APPROX. CURE TIME	MINIMUM EMBED. mm (in)	WORKING LOAD		SOURCE
					PULL-OUT kN (lbs)	SHEAR kN (lbs)	
(C) INJECTION SYSTEMS** (continued) (Anchor studs are not included with the system)							
4049	HIT RE 500	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1) 31.75 (1 1/4)	(Refer to product data)	44 (1 3/4) 57 (2 1/4) 73 (2 7/8) 86 (3 3/8) 101 (4) 114 (4 1/2) 140 (5 1/2)	4.9 (1095) 8.7 (1965) 13.5 (3045) 20.1 (4515) 25.2 (5665) 37.5 (8440) 57.0 (12815)	5.5 (1235) 11.1 (2505) 12.7 (2855) 17.2 (3875) 24.3 (5455) 30.4 (6825) 44.9 (10090)	Hilti, Inc. Continued
4054	HY 150 MAX	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1) 31.75 (1 1/4)	(Refer to product data)	85.7 (3 3/8) 114.3 (4 1/2) 142.9 (5 5/8) 171.5 (6 3/4) 200 (7 7/8) 228.6 (9) 285.8 (11 1/4)	13.6 (3055) 22.2 (4980) 37.4 (8410) 44.4 (9985) 65.9 (14815) 77.7 (17475) 133.8 (30085)	14.9 (3345) 26.5 (5950) 41.3 (9295) 59.5 (13380) 81.0 (18215) 105.8 (23790) 165.4 (37175)	
4055	RSE DOT	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1)	(Refer to product data)	85.7 (3 3/8) 114.3 (4 1/2) 142.9 (5 5/8) 171.5 (6 3/4) 200 (7 7/8) 228.6 (9)	9.7 (2180) 14.6 (3280) 21.5 (4835) 32.0 (7200) 39.8 (8945) 50.7 (11390)	7.4 (1665) 12.6 (2842) 19.2 (4320) 31.4 (7061) 36.7 (8242) 47.4 (10665)	
4032	Epcon Ceramic 6	(Refer to product data)					ITW Ramset/Red Head
4042	Epcon Acrylic 7	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1)	(Refer to product data)	85.7 (3 3/8) 114.3 (4 1/2) 142.9 (5 5/8) 171.5 (6 3/4) 200 (7 7/8) 228.6 (9)	9.9 (2299) 15.1 (3387) 24.7 (5559) 32.9 (7405) 41.2 (9272) 47.8 (10759)	6.2 (1390) 10.7 (2415) 18.0 (4045) 20.8 (4690) 31.2 (7020) 41.6 (9350)	

PRODUCT SOURCE CODE	PRODUCT	BOLT SIZE mm (in)	APPROX. CURE TIME	MINIMUM EMBED. mm (in)	WORKING LOAD		SOURCE	
					PULL-OUT kN (lbs)	SHEAR kN (lbs)		
(C) INJECTION SYSTEMS** (continued) (Anchor studs are not included with the system)								
4025	Mark - 198	(Refer to product data)					Poly-Carb. Inc. 33095 Bainbridge Road Cleveland, OH 44139	
4052	AC 100 Plus	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1) 31.75 (1 1/4)	(Refer to product data)	44 (1 3/4) 54 (2 1/8) 64 (2 1/2) 86 (3 3/8) 95 (3 3/4) 105 (4 1/8) 152 (6)	4.7 (1060) 7.5 (1683) 11.4 (2571) 18.9 (4254) 20.7 (4644) 22.2 (4996) 33.5 (7530)	5.2 (1159) 9.1 (2048) 10.1 (2279) 17.5 (3934) 20.8 (4680) 24.2 (5450) 38.9 (8756)	Powers Fasteners	
4065	Power-Fast + Standard Set	6.35 (1/4) 9.53 (3/8) 12.7 (1/2) 15.9 (5/8) 19.05 (3/4) 22.2 (7/8) 25.4 (1) 31.7 (1 1/4) 34.9 (1 3/8) 38.1 (1 1/2)	(Refer to product data)	76.2 (3) 114 (4 1/2) 152 (6) 190 (7 1/2) 228 (9) 266 (10 1/2) 305 (12) 381 (15) 419 (16 1/2) 457 (18)	5.0 (1117) 12.8 (2885) 21.9 (4925) 35.1 (7901) 49.4 (11118) 70.6 (15890) 89.6 (20151) 136 (30588) 162.7 (36598) 191.8 (43146)	2.7 (616) 7.2 (1620) 12.4 (2780) 19.6 (4412) 32.5 (7312) 40.1 (9016) 59 (13283) 92.7 (20862) 108.3 (24365) 125.3 (28195)		
4060	Sikadur Anchor Fix 4	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1) 31.8 (1 1/4)	(Refer to product data)	85.7 (3 3/8) 114.3 (4 1/2) 142.9 (5 5/8) 171.4 (6 3/4) 200 (7 7/8) 228.6 (9) 285.8 (11 1/4)	9.9 (2209) 15.8 (3536) 19.7 (4388) 31.5 (7035) 35.4 (7905) 47.7 (10639) 70.5 (15735)	5.0 (1125) 10.8 (2400) 19.2 (4275) 59.5 (4800) 30.9 (6900) 42.0 (9375) 60.5 (13500)	Sika Corporation 201 Polito Avenue Lyndhurst, NJ 07071	
4048	Pro-Poxy 300 Fast	9.5 (3/8) 12.7 (1/2) 15.9 (5/8) 19.1 (3/4) 22.2 (7/8) 25.4 (1)	(Refer to product data)	87.7 (3 3/8) 114.3 (4 1/2) 142.9 (5 5/8) 171.5 (6 3/4) 200 (7 7/8) 228.6 (9)	9.2 (2060) 13.0 (2930) 21.0 (4720) 28.7 (6470)	5.0 (1140) 9.0 (2025) 14.1 (3160) 20.3 (4555) 27.5 (6200) 36.0 (8100)	Unitex 3101 Gardener Kansas City, MO 64120	
(D) RESIN GROUTS**								
4013	21-24 TX Grout	(Refer to product data)					Celtite, Inc. 150 Carley Ct. Georgetown, KY 40324	
4014	21-30 Anchortote	(Anchor studs are not included with the system)						

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					PULL-OUT kN (lbs)	SHEAR kN (lbs)	
(D) RESIN GROUTS Continued**							
4023	Kelibond Resin (Used with Keligroutin Anchors)	9.53 (3/8)	20 min. @ 21° C (70°F)	63.5 (2½)	5.8 (1295)	Data not available	Kelken-Gold, Inc. P. O. Box 336 Hazlet, NJ 07730
		12.7 (½)		107.9 (4¼)	10.0 (2250)		
		15.9 (5/8)		127 (5)	19.6 (4415)		
		19.0 (¾)		152 (6)	31.2 (7010)		
		22.2 (7/8)		165 (6½)	44.3 (9960)		
		25.4 (1)		216 (8½)	50.7 (11415)		
		28.6 (1 1/8)		216 (8½)	74.5 (16760)		
31.7 (1¼)	229 (9)	71.3 (16035)					
(E) CEMENTITIOUS GROUTS**							
4029	Quikrete Anchoring Cement	(Refer to product data) (Anchor studs are not included with the system)					Southern Quikrete Products, Inc. 1790 Century Cir. Atlanta, GA 30345

*Type I, Grade C, epoxy listed on Qualified Products List 32 is also approved for use with concrete anchor bolt systems.

** Not approved for sustained tensile load such as overhead applications.

REFERENCE:

2006 DOTD Specifications, Subsection 1018.22

NOTE:

All material, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual and tested for conformance to the contract specification. Any deviation in composition or performance from the original sample submitted may result in removal of the product from the qualified list.

No information contained in this list is to be used for promotional purposes.