W. R. MEADOWS
SEALTIGHT
A Family Company Since 1926
QUALITY...SERVICE...INTEGRITY

POLY-GRIP™
Technical Data Chart

POLY-GRIP performance to ASTM C881-14 [1,2,3]

Property	Cure Time	ASTM Standard	Units	Sample Conditioning Temperature		
				Class A	Class B	Class C
				15 °F (-10) °C	50 °F (10) °C	95 °F (35) °C
Gel Time - 60 Gram Mass [4]	----	C881	min	50	10	4
Compressive Yield Strength	7 day	D695	psi (MPa)	5,930 (40.9)	5,630 (38.8)	3,450 (23.8)
Compressive Modulus			psi (MPa)	357,000 (2,464)	273,000 (1,882)	274,200 (1,891)
Bond Strength Hardened to Hardened Concrete	2 day	C882	psi (MPa)	3,050 (21.0)	3,020 (20.8)	2,480 (17.1)
	14 day		psi	3,210 (22.1)	3,040 (21.0)	3,090 (21.3)
Bond Strength Fresh Concrete to Hardened Concrete			psi (MPa)	2,120 (14.6)		
Consistency or Viscosity	----	C881	----	Non-sag		
Heat Deflection Temperature	7 day	D648	°F (°C)	145 (62.8)		
Water Absorption	14 day	D570	%	0.42		
Linear Coefficient of Shrinkage	48 hr	D2566	%	0.014		

1. Results based on testing conducted on a representative lot(s) of product. Average results will vary according to the tolerances of the given property. 2. Full cure time is listed above to obtain the give properties for each product characteristic. 3. Results may vary due to environmental factors such as temperature, moisture and type of substrate. 4. Gel time may be lower than the minimum required for ASTM C881.

POLY-GRIP CURE SCHEDULE [1,2,3]

Base Material Temperature Range °F (°C)	Working Time	Full Cure Time Dry Concrete	Full Cure Time Damp Concrete
15 (-9)	50 min	4 hr	8 hr
23 (-5)	40 min	3 hr	6 hr
41 (5)	20 min	90 min	3 hr
59 (15)	9 min	60 min	2 hr
77 (25)	5 min	30 min	60 min
95 (35)	3 min	20 min	40 min

1. Working and full cure times are approximate, may be linearly interpolated between listed temperatures and are based on cartridge/nozzle system performance. 2. Application Temperature: Substrate temperature should be from 15 - 95 °F (-9 - 35 °C). 3. When ambient or base material temperature falls below 23 °F (-5 °C), condition the adhesive above 68 °F (20 °C) prior to use.

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POLY-GRIP and allowable TENSION & SHEAR loads for THREADED ROD in normal-weight concrete [1,2]

Threaded Rod Diameter in.	Nominal Drill Bit Diameter in.	Embed - ment Depth in. (mm)	Tension Load Based on Bond Strength/ Concrete Capacity		Allowable Loads Based on Steel Strength[3]					
			f'c ≥ 4,000 psi (27.5 MPa)		Tension			Shear		
			Ultimate lbs. (kN)	Allowable lbs. (kN)	ASTM F1554 Grade 36 lbs. (kN)	ASTM A193 Grade B7 lbs. (kN)	ASTM F593 304/316 SS lbs. (kN)	ASTM F1554 Grade 36 lbs. (kN)	ASTM A193 Grade B7 lbs. (kN)	ASTM F593 304/316 SS lbs. (kN)
3/8	7/16	3 3/8	7,127	1,782	2,114	4,556	3,645	1,089	2,347	1,878
		(86)	(31.7)	(7.9)	(9.4)	(20.3)	(16.2)	(4.8)	(10.4)	(8.4)
1/2	9/16	4 1/2	13,273	3,318	3,758	8,099	6,480	1,936	4,172	3,338
		(114)	(59.0)	(14.8)	(16.7)	(36.0)	(28.8)	(8.6)	(18.6)	(14.8)
5/8	3/4	5 5/8	16,800	4,200	5,872	12,655	10,124	3,025	6,519	5,216
		(143)	(74.7)	(18.7)	(26.1)	(56.3)	(45.0)	(13.5)	(29.0)	(23.2)
3/4	7/8	6 3/4	22,231	5,558	8,456	18,224	12,392	4,356	9,388	6,384
		(171)	(98.9)	(24.7)	(37.6)	(81.1)	(55.1)	(19.4)	(41.8)	(28.4)
7/8[4]	1	7 7/8	32,174	8,043	11,509	24,804	16,867	5,929	12,778	8,689
		(200)	(143.1)	(35.8)	(51.2)	(110.3)	(75.0)	(26.4)	(56.8)	(38.7)
1	1 1/8	9	41,474	10,369	15,033	32,398	22,030	7,744	16,690	11,349
		(229)	(184.5)	(46.1)	(66.9)	(144.1)	(98.0)	(34.4)	(74.2)	(50.5)

1. Allowable bond strength/concrete capacity was calculated using a safety factor of 4.0. 2. The lower value of either the allowable bond strength/concrete capacity or steel strength should be used as the allowable tension value for design. 3. Allowable steel strengths calculated in accordance with AISC Manual of Steel Construction: Tensile = $0.33*F_u*A_{nom}$., Shear = $0.17*F_u*A_{nom}$ 4. Values for bond strength of 7/8" rebar were linearly interpolated from 3/4" & 1" data.

POLY-GRIP and allowable TENSION & SHEAR loads for REBAR in normal-weight concrete [1,2]

Rebar Size	Nominal Drill Bit Diameter in.	Embedment Depth in. (mm)	Tension Load Based on Bond Strength/ Concrete Capacity		Allowable Loads Based on Steel Strength[3]			
			f'c ≥ 4,000 psi (27.5 MPa)		Tension		Shear	
			Ultimate lbs. (kN)	Allowable lbs. (kN)	ASTM A615 Grade 60 lbs. (kN)	ASTM A615 Grade 75 lbs. (kN)	ASTM A615 Grade 60 lbs. (kN)	ASTM A615 Grade 75 lbs. (kN)
#3	7/16	3 3/8 (86)	9,723 (43.3)	2,431 (10.8)	2,640 (11.7)	3,300 (14.7)	1,683 (7.5)	1,870 (8.3)
#4	9/16	4 1/2 (114)	14,830 (66.0)	3,708 (16.5)	4,800 (21.4)	6,000 (26.7)	3,060 (13.6)	3,400 (15.1)
#5	3/4	5 5/8 (143)	19,838 (88.2)	4,960 (22.1)	7,440 (33.1)	9,300 (41.4)	4,743 (21.1)	5,270 (23.4)
#6	7/8	6 3/4 (171)	28,762 (127.9)	7,191 (32.0)	10,560 (47.0)	13,200 (58.7)	6,732 (29.9)	7,480 (33.3)
#7[4]	1	7 7/8 (200)	33,598 (149.5)	8,400 (37.4)	14,400 (64.1)	18,000 (80.1)	9,180 (40.8)	10,200 (45.4)
#8	1 1/8	9 (229)	39,623 (176.3)	9,906 (44.1)	18,960 (84.3)	23,700 (105.4)	12,087 (53.8)	13,430 (59.7)

1. Allowable bond strength/concrete capacity was calculated using a safety factor of 4.0. 2. The lower value of either the adjusted allowable bond strength/concrete capacity or steel strength should be used as the allowable tension or shear value for design. 3. Allowable steel strengths calculated in accordance with AISC Manual of Steel Construction: Tensile = $(F_y*A_{nom})/2.5$, Shear = $0.17*F_u*A_{nom}$ 4. Values for bond strength of #7 rebar were linearly interpolated from #6 & #8 data.