

SPECIFICATION & DESIGN MANUAL

Fluted Plastic Anchor[™] Plastic Wall Anchor

PRODUCT DESCRIPTION

The Fluted Plastic Anchor is designed for light duty fastening applications in concrete, block, brick or stone. The body of the Fluted Plastic anchor is injection molded from a ductile plastic and is designed to be used with sheet metal or wood screws.

The load capacities for this product depend on the integrity of the base material in which it is installed. The anchor is recommended for light duty static applications where holding power is not a critical factor. It should not be used overhead.

FEATURES AND BENEFITS

- Works in a variety of base materials
- Anchor body is resistant to corrosion

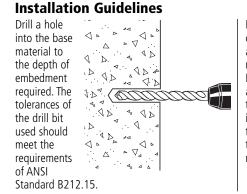
MATERIAL SPECIFICATIONS

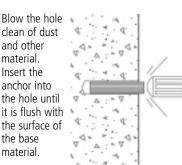
Anchor Component	Component Material			
Anchor Shield	Engineered Plastic			

INSTALLATION SPECIFICATIONS

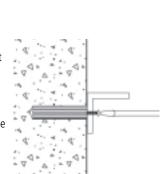
	Screw Size					
Dimension	#4-#6	#7-#9	#10-#12	#14		
ANSI Drill Bit Size, dbit (in.)	3/16	7/32	1/4	5/16		
Screw Size Range (UNC)	#4-#6	#7-#9	#10-#12	#14		

1 "7 "





Position the fixture. Insert the proper size screw through the fixture into the top of the anchor and tighten. Be sure screw thread fully engages the anchor body.



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ANCHOR MATERIAL

Engineered Plastic

ANCHOR SIZE RANGE (TYP.)

No. 4-6 screw x 1" length to No. 14 screw x 1 1/2" length

SUITABLE BASE MATERIALS

Normal-Weight Concrete



PERFORMANCE DATA

Ultimate Load Capacities for Fluted Plastic Anchor in Normal-Weight Concrete^{1,2}

Screw Size	Minimum Embedment Depth	Minimum Concrete Compressive Strength (f'c)					
Range		2,000 psi (13.8 MPa)		4,000 psi (27.6 MPa)		6,000 psi (41.4 MPa)	
d	h _ν in. (mm)	Tension Ibs. (kN)	Shear Ibs. (kN)	Tension Ibs. (kN)	Shear Ibs. (kN)	Tension Ibs. (kN)	Shear Ibs. (kN)
#4-#6	3/4 (19.1)	120 (0.5)	200 (0.9)	140 (0.6)	215 (1.0)	160 (0.7)	215 (1.0)
#7-#9	7/8 (22.2)	220 (1.0)	230 (1.0)	235 (1.1)	240 (1.1)	250 (1.1)	240 (1.1)
#10-#12	1 (25.4)	440 (2.0)	280 (1.3)	490 (2.2)	350 (1.6)	540 (2.4)	350 (1.6)
#10-#12	1 1/4 (31.8)	490 (2.2)	280 (1.3)	540 (2.4)	350 (1.6)	590 (2.7)	350 (1.6)
#10-#12	1 1/2 (38.1)	520 (2.3)	280 (1.3)	610 (2.7)	350 (1.6)	680 (3.1)	350 (1.6)
#14	1 (25.4)	520 (2.3)	530 (2.4)	570 (2.6)	575 (2.6)	620 (2.8)	575 (2.6)
#14	1 1/2 (38.1)	540 (2.4)	530 (2.4)	615 (2.8)	575 (2.6)	690 (3.1)	575 (2.6)

^{1.} The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 4.0 or greater to determine the allowable working load.

Allowable Load Capacities for Fluted Plastic Anchor in Normal-Weight Concrete^{1,2}

Screw Size	_Minimum	Minimum Concrete Compressive Strength (f'c)					
Range	Embedment Depth	2,000 psi (13.8 MPa)		4,000 psi (27.6 MPa)		6,000 psi (41.4 MPa)	
d	h _ν in. (mm)	Tension Ibs. (kN)	Shear Ibs. (kN)	Tension Ibs. (kN)	Shear Ibs. (kN)	Tension Ibs. (kN)	Shear Ibs. (kN)
#4-#6	3/4 (19.1)	30 (0.1)	60 (0.3)	35 (0.2)	55 (0.2)	40 (0.2)	55 (0.2)
#7-#9	7/8 (22.2)	55 (0.2)	60 (0.3)	60 (0.3)	60 (0.3)	65 (0.3)	60 (0.3)
#10-#12	1 (25.4)	110 (0.5)	70 (0.3)	125 (0.6)	90 (0.4)	135 (0.6)	90 (0.4)
#10-#12	1 1/4 (31.8)	125 (0.6)	70 (0.3)	135 (0.6)	90 (0.4)	150 (0.7)	90 (0.4)
#10-#12	1 1/2 (38.1)	130 (0.6)	70 (0.3)	155 (0.7)	90 (0.4)	170 (0.8)	90 (0.4)
#14	1 (25.4)	130 (0.6)	135 (0.6)	145 (0.7)	145 (0.7)	155 (0.7)	145 (0.7)
#14	1 1/2 (38.1)	135 (0.6)	135 (0.6)	155 (0.7)	145 (0.7)	175 (0.8)	145 (0.7)

ORDERING INFORMATION

Fluted Plastic Anchor (Not packaged with screws)

Cat. No.	Anchor Size	Color	Drill Diameter	Std. Box	Std. Carton	Wt./100
7500	#4-#6 x 1"	White	3/16"	100	1,000	1
7505	#7-#9 x 1"	Red	7/32"	100	1,000	2
7510	#10-#12 x 1"	Green	1/4"	100	1,000	2
7515	#10-#12 x 1 1/4"	Green	1/4"	100	1,000	2
7520	#10-#12 x 1 1/2"	Green	1/4"	100	1,000	3
7525	#14 x 1"	Blue	5/16"	100	1,000	2
7530	#14 x 1 1/2"	Blue	5/16"	100	1,000	4



^{2.} Linear interpolation may be used to determine ultimate loads for intermediate compressive strengths.

Allowable load capacities listed are calculated using an applied safety factor of 4.0.
Linear interpolation may be used to determine allowable loads for intermediate compressive strengths.

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