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1:1 CARTRIDGES USING FRACTIONAL THREADED ROD AND REBAR

TABLE 1: Number of anchors installed using a 5.2 oz. (154 ml) cartridge with FRACTIONAL THREADED ROD¹

Threaded Rod Size in.	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
3/8	7/16	41	27	20	16	13	11	10	9	8	7	6	6	5	5	5	4	4
1/2	9/16	29	19	14	11	9	8	7	6	5	5	4	4	4	3	3	3	3
5/8	3/4	14	9	7	5	4	4	3	3	2	2	2	2	2	1	1	1	1
3/4	7/8	12	8	6	4	4	3	3	2	2	2	2	1	1	1	1	1	1
7/8	1	10	6	5	4	3	2	2	2	2	1	1	1	1	1	1	1	1
1	1 1/8	8	5	4	3	2	2	2	1	1	1	1	1	1	1	<1	<1	<1
1 1/4	1 3/8	6	4	3	2	2	1	1	1	1	1	<1	<1	<1	<1	<1	<1	<1

TABLE 2: Number of anchors installed using a 5.2 oz. (154 ml) cartridge with FRACTIONAL REBAR¹

Rebar Size	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
#3	1/2	35	23	17	14	11	10	8	7	7	6	5	5	4	4	4	4	3
#4	5/8	27	18	13	11	9	7	6	6	5	5	4	4	3	3	3	3	3
#5	3/4	22	14	11	8	7	6	5	4	4	4	3	3	3	2	2	2	2
#6	7/8	17	11	8	7	5	5	4	3	3	3	2	2	2	2	2	2	1
#7	1	15	10	7	6	5	4	3	3	3	2	2	2	2	2	1	1	1
#8	1 1/8	13	8	6	5	4	3	3	2	2	2	2	2	1	1	1	1	1
#9	1 3/8	6	4	3	2	2	1	1	1	1	1	1	<1	<1	<1	<1	<1	<1
#10	1 1/2	6	4	3	2	2	1	1	1	1	1	<1	<1	<1	<1	<1	<1	<1

TABLE 3: Number of anchors installed using a 8.6 oz. (254 ml) cartridge with FRACTIONAL THREADED ROD¹

Threaded Rod Size in.	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
3/8	7/16	69	46	34	27	23	19	17	15	13	12	11	10	9	9	8	8	7
1/2	9/16	48	32	24	19	16	13	12	10	9	8	8	7	6	6	6	5	5
5/8	3/4	24	16	12	9	8	7	6	5	4	4	4	3	3	3	3	2	2
3/4	7/8	20	13	10	8	6	5	5	4	4	3	3	3	2	2	2	2	2
7/8	1	16	11	8	6	5	4	4	3	3	3	2	2	2	2	2	1	1
1	1 1/8	13	9	6	5	4	3	3	3	2	2	2	2	1	1	1	1	1
1 1/4	1 3/8	10	6	5	4	3	2	2	2	2	1	1	1	1	1	1	1	1

TABLE 4: Number of anchors installed using a 8.6 oz. (254 ml) cartridge with FRACTIONAL REBAR¹

Rebar Size	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
#3	1/2	59	39	29	23	19	16	14	13	11	10	9	9	8	7	7	6	6
#4	5/8	45	30	22	18	15	13	11	10	9	8	7	7	6	6	5	5	5
#5	3/4	36	24	18	14	12	10	9	8	7	6	6	5	5	4	4	4	4
#6	7/8	29	19	14	11	9	8	7	6	5	5	4	4	4	3	3	3	3
#7	1	25	17	12	10	8	7	6	5	5	4	4	3	3	3	3	3	2
#8	1 1/8	22	14	11	8	7	6	5	4	4	4	3	3	3	2	2	2	2
#9	1 3/8	10	7	5	4	3	3	2	2	2	1	1	1	1	1	1	1	1
#10	1 1/2	10	7	5	4	3	3	2	2	2	1	1	1	1	1	1	1	1

1. Estimates based on theoretical calculations using hammer drilled holes, including waste factor for nozzle and cartridge balancing. To add a typical usage Waste Factor (WF), Multiply the number of anchors reported in chart by 1-WF (Example: Waste factor of 15% = Number of anchors x (1-0.15)). Actual results may vary and should be used for estimating purposes only.

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TABLE 5: Number of anchors installed using a **21.2 oz. (627 ml)** cartridge with **FRACTIONAL THREADED ROD**¹

Threaded Rod Size in.	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
3/8	7/16	182	121	91	72	60	52	45	40	36	33	30	28	26	24	22	21	20
1/2	9/16	129	86	64	51	43	36	32	28	25	23	21	19	18	17	16	15	14
5/8	3/4	65	43	32	26	21	18	16	14	13	11	10	10	9	8	8	7	7
3/4	7/8	52	35	26	21	17	15	13	11	10	9	8	8	7	7	6	6	5
7/8	1	44	29	22	17	14	12	11	9	8	8	7	6	6	5	5	5	4
1	1 1/8	36	24	18	14	12	10	9	8	7	6	6	5	5	4	4	4	4
1 1/4	1 3/8	27	18	13	11	9	7	6	6	5	5	4	4	3	3	3	3	3

TABLE 6: Number of anchors installed using a **21.2 oz. (627 ml)** cartridge with **FRACTIONAL REBAR**¹

Rebar Size	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
#3	1/2	155	103	77	62	51	44	38	34	31	28	25	23	22	20	19	18	17
#4	5/8	121	80	60	48	40	34	30	26	24	22	20	18	17	16	15	14	13
#5	3/4	97	65	48	39	32	27	24	21	19	17	16	15	13	13	12	11	10
#6	7/8	78	52	39	31	26	22	19	17	15	14	13	12	11	10	9	9	8
#7	1	68	45	34	27	22	19	17	15	13	12	11	10	9	9	8	8	7
#8	1 1/8	58	39	29	23	19	16	14	13	11	10	9	9	8	7	7	6	6
#9	1 3/8	28	19	14	11	9	8	7	6	5	5	4	4	4	3	3	3	3
#10	1 1/2	27	18	13	11	9	7	6	6	5	5	4	4	3	3	3	3	3

TABLE 7: Number of anchors installed using a **53 oz. (1.6 L)** cartridge with **FRACTIONAL THREADED ROD**¹

Threaded Rod Size in.	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
3/8	7/16	469	312	234	187	156	134	117	104	93	85	78	72	67	62	58	55	52
1/2	9/16	332	221	166	132	110	94	83	73	66	60	55	51	47	44	41	39	36
5/8	3/4	167	111	83	67	55	47	41	37	33	30	27	25	23	22	20	19	18
3/4	7/8	136	90	68	54	45	38	34	30	27	24	22	20	19	18	17	16	15
7/8	1	113	75	56	45	37	32	28	25	22	20	18	17	16	15	14	13	12
1	1 1/8	92	61	46	37	30	26	23	20	18	16	15	14	13	12	11	10	10
1 1/4	1 3/8	70	47	35	28	23	20	17	15	14	12	11	10	10	9	8	8	7

TABLE 8: Number of anchors installed using a **53 oz. (1.6 L)** cartridge with **FRACTIONAL REBAR**¹

Rebar Size	Drill Bit in.	Embedment Depth in. (mm)																
		2 (51)	3 (76)	4 (102)	5 (127)	6 (152)	7 (178)	8 (203)	9 (229)	10 (254)	11 (279)	12 (305)	13 (330)	14 (356)	15 (381)	16 (406)	17 (432)	18 (457)
#3	1/2	400	267	200	160	133	114	100	89	80	72	66	61	57	53	50	47	44
#4	5/8	311	207	155	124	103	89	77	69	62	56	51	47	44	41	38	36	34
#5	3/4	251	167	125	100	83	71	62	55	50	45	41	38	35	33	31	29	27
#6	7/8	201	134	100	80	67	57	50	44	40	36	33	30	28	26	25	23	22
#7	1	175	116	87	70	58	50	43	38	35	31	29	26	25	23	21	20	19
#8	1 1/8	150	100	75	60	50	43	37	33	30	27	25	23	21	20	18	17	16
#9	1 3/8	74	49	37	29	24	21	18	16	14	13	12	11	10	9	9	8	8
#10	1 1/2	71	47	35	28	23	20	17	15	14	13	11	11	10	9	8	8	7

1. Estimates based on theoretical calculations using hammer drilled holes, including waste factor for nozzle and cartridge balancing. To add a typical usage Waste Factor (WF), Multiply the number of anchors reported in chart by 1-WF (Example: Waste factor of 15% = Number of anchors x (1-0.15)). Actual results may vary and should be used for estimating purposes only.