

### 10:1 CARTRIDGES USING FRACTIONAL THREADED ROD AND REBAR

**TABLE 1: Number of anchors installed using a 10.1 oz. (298 ml) cartridge with FRACTIONAL THREADED ROD<sup>1</sup>**

| 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          | 84                       | 56     | 42      | 33      | 28      | 24      | 21      | 18      | 16       | 15       | 14       | 13       | 12       | 11       | 10       | 9        | 9        |
| 1/2                   | 9/16          | 60                       | 40     | 30      | 24      | 20      | 17      | 15      | 13      | 12       | 10       | 10       | 9        | 8        | 8        | 7        | 7        | 6        |
| 5/8                   | 3/4           | 30                       | 20     | 15      | 12      | 10      | 8       | 7       | 6       | 6        | 5        | 5        | 4        | 4        | 4        | 3        | 3        | 3        |
| 3/4                   | 7/8           | 24                       | 16     | 12      | 9       | 8       | 7       | 6       | 5       | 4        | 4        | 4        | 3        | 3        | 3        | 3        | 2        | 2        |
| 7/8                   | 1             | 20                       | 13     | 10      | 8       | 6       | 5       | 5       | 4       | 4        | 3        | 3        | 3        | 2        | 2        | 2        | 2        | 2        |
| 1                     | 1 1/8         | 16                       | 11     | 8       | 6       | 5       | 4       | 4       | 3       | 3        | 3        | 2        | 2        | 2        | 2        | 2        | 1        | 1        |
| 1 1/4                 | 1 3/8         | 12                       | 8      | 6       | 5       | 4       | 3       | 3       | 2       | 2        | 2        | 2        | 1        | 1        | 1        | 1        | 1        | 1        |

**TABLE 2: Number of anchors installed using a 10.1 oz. (298 ml) cartridge with FRACTIONAL REBAR<sup>1</sup>**

| 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           | 72                       | 48     | 36      | 29      | 24      | 20      | 18      | 16      | 14       | 13       | 12       | 11       | 10       | 9        | 9        | 8        | 8        |
| #4         | 5/8           | 56                       | 37     | 28      | 22      | 18      | 16      | 14      | 12      | 11       | 10       | 9        | 8        | 8        | 7        | 7        | 6        | 6        |
| #5         | 3/4           | 45                       | 30     | 22      | 18      | 15      | 13      | 11      | 10      | 9        | 8        | 7        | 7        | 6        | 6        | 5        | 5        | 5        |
| #6         | 7/8           | 36                       | 24     | 18      | 14      | 12      | 10      | 9       | 8       | 7        | 6        | 6        | 5        | 5        | 4        | 4        | 4        | 4        |
| #7         | 1             | 31                       | 21     | 15      | 12      | 10      | 9       | 7       | 7       | 6        | 5        | 5        | 4        | 4        | 4        | 3        | 3        | 3        |
| #8         | 1 1/8         | 27                       | 18     | 13      | 10      | 9       | 7       | 6       | 6       | 5        | 4        | 4        | 4        | 3        | 3        | 3        | 3        | 3        |
| #9         | 1 3/8         | 13                       | 9      | 6       | 5       | 4       | 3       | 3       | 3       | 2        | 2        | 2        | 2        | 1        | 1        | 1        | 1        | 1        |
| #10        | 1 1/2         | 13                       | 8      | 6       | 5       | 4       | 3       | 3       | 2       | 2        | 2        | 2        | 2        | 1        | 1        | 1        | 1        | 1        |

**TABLE 3: Number of anchors installed using a 28 oz. (828 ml) cartridge with FRACTIONAL THREADED ROD<sup>1</sup>**

| 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          | 254                      | 169    | 127     | 101     | 84      | 72      | 63      | 56      | 50       | 46       | 42       | 39       | 36       | 33       | 31       | 29       | 28       |
| 1/2                   | 9/16          | 180                      | 120    | 90      | 72      | 60      | 51      | 45      | 40      | 36       | 32       | 30       | 27       | 25       | 24       | 22       | 21       | 20       |
| 5/8                   | 3/4           | 90                       | 60     | 45      | 36      | 30      | 25      | 22      | 20      | 18       | 16       | 15       | 13       | 12       | 12       | 11       | 10       | 10       |
| 3/4                   | 7/8           | 73                       | 49     | 36      | 29      | 24      | 21      | 18      | 16      | 14       | 13       | 12       | 11       | 10       | 9        | 9        | 8        | 8        |
| 7/8                   | 1             | 61                       | 40     | 30      | 24      | 20      | 17      | 15      | 13      | 12       | 11       | 10       | 9        | 8        | 8        | 7        | 7        | 6        |
| 1                     | 1 1/8         | 50                       | 33     | 25      | 20      | 16      | 14      | 12      | 11      | 10       | 9        | 8        | 7        | 7        | 6        | 6        | 5        | 5        |
| 1 1/4                 | 1 3/8         | 38                       | 25     | 19      | 15      | 12      | 10      | 9       | 8       | 7        | 6        | 6        | 5        | 5        | 5        | 4        | 4        | 4        |

**TABLE 4: Number of anchors installed using a 28 oz. (828 ml) cartridge with FRACTIONAL REBAR<sup>1</sup>**

| 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           | 217                      | 144    | 108     | 86      | 72      | 62      | 54      | 48      | 43       | 39       | 36       | 33       | 31       | 28       | 27       | 25       | 24       |
| #4         | 5/8           | 169                      | 112    | 84      | 67      | 56      | 48      | 42      | 37      | 33       | 30       | 28       | 26       | 24       | 22       | 21       | 19       | 18       |
| #5         | 3/4           | 136                      | 90     | 68      | 54      | 45      | 38      | 34      | 30      | 27       | 24       | 22       | 20       | 19       | 18       | 17       | 16       | 15       |
| #6         | 7/8           | 109                      | 72     | 54      | 43      | 36      | 31      | 27      | 24      | 21       | 19       | 18       | 16       | 15       | 14       | 13       | 12       | 12       |
| #7         | 1             | 95                       | 63     | 47      | 38      | 31      | 27      | 23      | 21      | 19       | 17       | 15       | 14       | 13       | 12       | 11       | 11       | 10       |
| #8         | 1 1/8         | 81                       | 54     | 40      | 32      | 27      | 23      | 20      | 18      | 16       | 14       | 13       | 12       | 11       | 10       | 10       | 9        | 9        |
| #9         | 1 3/8         | 40                       | 26     | 20      | 16      | 13      | 11      | 10      | 8       | 8        | 7        | 6        | 6        | 5        | 5        | 5        | 4        | 4        |
| #10        | 1 1/2         | 38                       | 25     | 19      | 15      | 12      | 11      | 9       | 8       | 7        | 7        | 6        | 5        | 5        | 5        | 4        | 4        | 4        |

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.