

STRUX® 90/40 & STRUX® BT-50 Typical Dosage Rate Charts

Below are STRUX® dosage rate replacement charts for typical wire sizes and spacings.

- Table #1 to be used with 3,000 psi concrete
- Table #2 to be used with 4,000 psi concrete
- Table #3 to be used with 5,000 psi concrete

*** With red font indicates that STRUX® BT-50 should be used, dosage too high for STRUX® 90/40**

Note: Keep in mind that in many cases the WWF or rebar specified is over designed for intended application. Therefore, if you think this is the case, consult with local Grace representative.

W1.4 = 10 gauge, W2.0 = 8 gauge, W 2.9 = 6 gauge

Table 1

3000 psi Concrete			
Typical Wire Sizes			
Concrete Thickness	6" x 6" x W1.4	6" x 6" x W2.0	6" x 6" x W2.9
2"	5 lbs	7.5 lbs	*14 lbs
3"	3.5 lbs	5.0 lbs	7.0 lbs
4"	3.0 lbs	4.5 lbs	6.5 lbs
5"	3.0 lbs	3.5 lbs	5.5 lbs
6"	3.0 lbs	3.0 lbs	4.5 lbs
7"	3.0 lbs	3.0 lbs	4.0 lbs
8"	3.0 lbs	3.0 lbs	3.0 lbs

Table 2

4000 psi Concrete			
Typical Wire Sizes			
Concrete Thickness	6" x 6" x W1.4	6" x 6" x W2.0	6" x 6" x W2.9
2"	4.5 lbs	7.0 lbs	*14 lbs
3"	3.5 lbs	4.5 lbs	6.5 lbs
4"	3.0 lbs	4.0 lbs	6.0 lbs
5"	3.0 lbs	3.5 lbs	4.5 lbs
6"	3.0 lbs	3.5 lbs	4.0 lbs
7"	3.0 lbs	3.5 lbs	3.5 lbs
8"	3.0 lbs	3.5 lbs	3.5 lbs

Table 3

5000 psi Concrete			
Typical Wire Sizes			
Concrete Thickness	6" x 6" x W1.4	6" x 6" x W2.0	6" x 6" x W2.9
2"	4.0 lbs	6.0 lbs	*14 lbs
3"	3.0 lbs	4.0 lbs	6.0 lbs
4"	3.0 lbs	3.5 lbs	5.5 lbs
5"	3.0 lbs	3.5 lbs	4.0 lbs
6"	3.0 lbs	3.5 lbs	3.5 lbs
7"	3.0 lbs	3.5 lbs	3.5 lbs
8"	3.0 lbs	3.5 lbs	3.5 lbs



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- Table #4 is to be used with 4,000 psi concrete and #3 rebar
- Table #5 is to be used with 4,000 psi concrete and #4 rebar
- Table #6 is for typical composite metal deck applications

- If your case isn't on these charts, Contact Grace Representative
- When dosage "**Too High**" Contact Grace Representative
- ***In Red font indicates that STRUX® BT-50 should be used**

Table 4

4000 psi Concrete			
Typical Rebar Sizes			
Concrete Thickness	#3 @ 24" OC	#3 @ 18" OC	#3 @ 12" OC
2"	*14 lbs	Too High	Too High
3"	6.0 lbs	*12 lbs	Too High
4"	5.5 lbs	*7.5 lbs	*14 lbs
5"	4.5 lbs	6.0 lbs	*11 lbs
6"	3.5 lbs	5.0 lbs	*8 lbs
7"	3.5 lbs	4.0 lbs	6.5 lbs
8"	3.5 lbs	3.5 lbs	5.0 lbs

Table 5

4000 psi Concrete			
Typical Rebar Sizes			
Concrete Thickness	#4 @ 24" OC	#4 @ 18" OC	#4 @ 12" OC
2"	Too High	Too High	Too High
3"	Too High	Too High	Too High
4"	*12 lbs	Too High	Too High
5"	*9.5 lbs	*13 lbs	Too High
6"	7.0 lbs	*10.5 lbs	Too High
7"	6.0 lbs	*8.5 lbs	*14 lbs
8"	5.0 lbs	7.0 lbs	*12 lbs

Table 6

Height of concrete above flutes (in.)	Recommended WWF to meet minimum Area of steel per ANSI/SDI C1.0	Equivalent STRUX 90/40 addition rate lbs/yd ³	
		Light weight	Normal weight
2.0	6 x 6 W1.4 x W1.4	5	4.5
2.5	6 x 6 W1.4 x W1.4	4	4
3.0	6 x 6 W1.4 x W1.4	4	4
3.5	6 x 6 W2.1 x W2.1	4	4
4.0	6 x 6 W2.1 x W2.1	4	4
4.5	6 x 6 W2.1 x W2.1	4	4
5.0	6 x 6 W2.9 x W2.9	4	4
5.5	6 x 6 W2.9 x W2.9	4	4
6.0	6 x 6 W2.9 x W2.9	4	4

Note 1: Temperature and shrinkage reinforcement consisting of WWF or reinforcing bars, shall have a minimum area of 0.00075 times the area of concrete above the deck but shall not be less than a 6 x 6 x W1.4 x W1.4 (ANSI/SDI-C1.0).

Note 2: Fibers shall be permitted as a suitable alternative to welded wire fabric... Marco synthetic fibers "Coarse fibers" (per ASTM Subcommittee C09.42), made from virgin polyolefin, shall have an equivalent diameter between 0.016 in. (0.4 mm) and 0.05 in. (1.25 mm), having a minimum aspect ratio (length/equivalent diameter) of 50, at a minimum addition rate of 4 lbs/yd³ (2.4kg/m³) are suitable to be used as a minimum temperature and shrinkage reinforcement.

Note 3: For deck and WWF configurations not covered by this table, contact your local Grace representative for STRUX 90/40 addition rate.

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W. R. Grace & Co.—Conn., 62 Whittemore Avenue, Cambridge, MA 02140. In Canada, Grace Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

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