

Steel Equivalency Chart

GRADE	40 REBAR	EQUIVALENT REBAR	GRADE 60	EQUIVALENT WELDED WIRE	65 K.S.I. MESH
BAR SIZE & SPACING	STEEL AREA	BAR SIZING & SPACING	MIN. STEEL AREA	* WIRE SIZE & SPACING	MIN. STEEL AREA
#4 @ 12" CCEW	0.20	#3 @ 9 1/2" CCEW	0.1333	W3.5/W3.5, 3" X 3" OR W4.5/W4.5, 4" X 4" OR W6.2/W6.2, 6" X 6"	0.1230
#4 @ 6" CCEW	0.40	#4 @ 9" CCEW #5 @ 13 1/2" CCEW	0.2866	W6.5/W6.5, 3" X 3" OR W9/W9, 4" X 4"	0.2461
#5 @ 12" CCEW	0.31	#4 @ 11 1/2" CCEW	0.2066	W5/W5, 3" X 3" OR W5/W6.7, 3" X 4"	0.1907
#5 @ 6" CCEW	0.62	#6 @ 12" CCEW #5 @ 9" CCEW	.4133	W10/W10, 3" X 3"	0.3815
#6 @ 12" CCEW	0.44	#5 @ 12 1/2" CCEW	0.2933	W6.5/W6.5, 3" X 3"	0.2707
#6 @ 6" CCEW	0.88	#6 @ 9" CCEW #7 @ 12" CCEW	0.5866	W14/W14, 3" X 3"	0.5415
#7 @ 12" CCEW	0.60	#6 @ 13" CCEW	0.4000	W9.5/W9.5, 3" X 3"	0.3692
#7 @ 6" CCEW	1.20	#7 @ 9" CCEW	0.8000	W26/W26, 4" X 4"	0.7385
#8 @ 12" CCEW	0.79	#7 @ 13 1/2" CCEW	0.5267	W26/W26, 6" X 6"	0.4861
#8 @ 6" CCEW	1.58	#8 @ 9" CCEW	1.0530	W26/W26, 3" X 3"	0.9723

Most steel reinforcing designs in the precast industry use grade 40 or 60 rebar. The yield strength of grade 40 rebar is 40,000 p.s.i. steel cross sectional areas may be reduced by using higher strength steels and still maintain equivalent yield strengths.

The following chart has been developed to show equivalent yield strengths for grade 40 rebar, grade 60 rebar, and 65 k.s.i. welded wire mesh. The equivalent steel areas are directly proportional to the yield strengths, therefore:

Grade 60 steel area = 40,000 / 60,000 x grade 40 steel area

65 k.s.i. welded wire mesh = 40,000/65,000 x grade 40 steel area

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