

Technical Data

Mateenbar™ 60

Mateenbar 60 (CSA Grade III)

	Units	#2 (6mm)	#3 (10mm)	#4 (13mm)	#5 (15/16mm)	#6 (19/20mm)	#7 (22mm)	#8 (25mm)	#9 (30mm)	#10 (32mm)
Guaranteed tensile force	kN	27	71	129	199	284	387	510	600	735
	kip	7.2	16.0	29.0	44.0	64.0	87.0	115.0	134.9	165.2
	MPa									
	ksi									
Elastic Modulus	GPa	60								
	ksi	8700								
Guaranteed transverse shear capacity	kN									
	kip									
	MPa	180								
	ksi	26.1								
Primary Materials		Epoxy Backboned Vinylester and Corrosion Resistant E-CR Glass								
Weight	g/m	97	185	315	476	702	960	1252	1575	2050
	lb/ft	0.07	0.12	0.21	0.32	0.47	0.64	0.84	1.06	1.37
Nominal cross-sectional area	mm ²	32	71	129	199	284	387	510	645	819
	in ²	0.049	0.110	0.200	0.310	0.440	0.600	0.790	1.000	1.270
Outer diameter (including ribs)	mm	8.2	10.8	14.0	17.2	20.6	24.1	27.4	30.8	35.0
	in	0.315	0.425	0.551	0.677	0.807	0.949	1.087	1.213	1.378

Please contact our team for information on the material properties, shape availability and dimensional limitations of bent bars.

Direct comparisons: Steel and mateenbar

Material Properties	Units	Mateenbar™	Stainless Steel (ASTM A955)	Steel (ASTM A615)
Tensile strength	MPa	800 - 1100	420	420
	ksi	116 - 159	60	60
Elastic Modulus	GPa	46 - 60	200	200
	KSI	6675 - 8700	29000	29000
Bond strength	MPa	10	10	10
	PSI	1450	1450	1450
Thermal conductivity	W/ (m·°C)	< 1 ⁽¹⁾	16	54
	BTU/(hr·ft·°F)	< 0.6 ⁽¹⁾	10	32
Electrical resistivity	Ω·m	> 200 x 10 ¹⁰	1 x 10 ⁻⁴	1.5 x 10
	Ω·in	> 8 x 10 ¹³	4 x 10 ⁻⁵	6 x 10
Unit weight	kg/m ³	2100	7800 - 8000	7850
	lb/ft ³	130	485 - 500	490

(1) Approximate value