

Selection Guide to Carbon Steel Sheets and Coils for Perforating Applications

TYPE	DESCRIPTION	RECOMMENDED SIZE					CARBON CONTENT	TYPICAL MECHANICAL PROPERTIES				APPROXIMATE RELATIVE COST (10 ga. H.R. Steel = 100)	
		SHEETS			COILS			Tensile, PSI	Yield, PSI	% Elong. 2"	Hardness Rb.	SHEETS	COILS
		T	W	L ¹	T	W							
HOT ROLLED STEELS (see pages 54 to 56)													
COMMERCIAL QUALITY (SAE or AISI #1008; ASTM #A569)	A low cost sheet steel with moderate drawing and forming qualities for use where finish is unimportant. For best perforating results specify PICKLED AND OILED for removal of oxides.	7 to 16 ga.	Up to 60"	Up to 144"	7 to 16 ga.	Up to 60"	.10 max.	45,000 to 60,000	30,000 to 40,000	28 to 38	55 to 70	100 Pickled and Oiled-104	95 99
DRAWING QUALITY (SAE or AISI #1008; ASTM #A621)	This quality is intended for use where forming requirements are too severe for Commercial Quality. Pickling and oiling to remove oxides is recommended. In-stock availability is not as great as Commercial Quality.	7 to 16 ga.	Up to 60"	Up to 144"	7 to 16 ga.	Up to 60"	.10 max.	45,000 to 60,000	30,000 to 40,000	28 to 38	55 to 70	103	98
HIGH-STRENGTH, LOW ALLOY USS Cor-Ten or equivalent.; ASTM #A375)	Good formability because of low carbon content in combination with relatively high YIELD and TENSILE properties permit these steels to be used in lighter gauges to reduce weight in applications where strength is important. Readily weldable.	7 to 16 ga.	Up to 60"	Up to 144"	11 to 14 ga.	Up to 60"	.12 max.	70,000 min.	50,000 min.	22 min.	80 to 90	132	126
ABRASION RESISTING (C .35-.50; Mn 1.50-2.00; P .050 max.; S .055 max; Si .15-.35)	High manganese content in combination with intermediate carbon greatly enhances resistance to abrasion; can improve part life 2 to 10 times. Moderate formability.	7 to 16 ga.	Up to 60"	Up to 144"	N.A.	N.A.	.35-.50	100,000 to 120,000	55,000 to 70,000	10 to 20	210 to 225 (Bhn.)	118	N. A.