ASTM SPECIFICATION CONVERSION WITH TYPICAL ROCKWELL AND MECHANICAL RANGES FOR EACH QUALITY

Previous Product Designation No longer Used	New Product Designation Current	Typical Rockwell Range	Typical Mechanical Range		
			Tensile	Yield	Elongation
Commercial Quality (CQ) **ASTM 526** Lock Forming Quality (LFQ) ASTM 527	Commercial Steel, Type B (CS) **ASTM 653**	50 - 65	45 - 57	35 - 49	23 - 37
Drawing Quality (DQ) **ASTM 527**	Forming Steel, Type B (FS) **ASTN 653**	45 - 55	42 - 50	25 - 38	33 - 43
Drawing Quality Special Killed (DQSK) Or Aluminum Killed Drawing Quality (AKDQ **ASTM 528**	Deep Drawing Steel (DDS) **ASTM 653**	36 -50	40 - 47	25 - 35	35 - 45
Deep Drawing Quality Special Killed (DDQSK) or Interstitial Free **ASTM 642**	Extra Deep Drawing Steel (EDDS) or Interstitial Free **ASTM 653**	40 - 48	42 - 47	24 - 29	39 - 43
		Rockwell Range	**Minimum Mechanical Requirements**		
Structural Quality (SQ) **ASTM 446**	Structural Steel (SS) **ASTM 653**				
Grade A	Grade 33	*	45	33	20
Grade B	Grade 37	*	52	37	18
Grade C	Grade 40	*	55	40	16
Grade D (Class 1)	Grade 50 (Class 1)	*	65	50	12
Grade D (Class 2)	Grade 50 (Class 2)	*	*	50	12
Grade D (Class 3)	Grade 50 (Class 3)	*	70	50	12
Grade E (Full Hard)	Grade 80 (Full Hard)	*	82	80	*

NOTE: THE ROCKWELL RANGES AND MECHANICAL PROPERTIES ARE TYPICAL TO EACH QUALITY OF STEEL AND MAY VARY TO SOME DEGREE

The Forming Steel (FS) designation will encompass the properties of the previous Drawing Quality (DQ) grade in the specifications A-528. The Deep Drawing Steel (DDS) designation will encompass the properties of the previous Drawing Quality Special Killed (DQSK) in the specification A-642 and can be produced as stabilized steel (EDDS) at the producers option. The Extra Deep Drawing Steel (EDDS) designation is free from aging over time with no changes in the mechanical properties. The (EDDS) will always be stabilized.

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