

# Material Specifications

Material Grade	Heat Treatment	Tempering Temperature	Manufacturing Process	Hardness (Max)		Yield Strength (MPa)		Tensile Strength (MPa)
				HRC	HBW	Min	Max	Min
H40	N.A.	N.A.	SMLS / ERW	N.A.	N.A.	276	552	414
J55	N.A.	N.A.	SMLS / ERW	N.A.	N.A.	379	552	517
K55	N.A.	N.A.	SMLS / ERW	N.A.	N.A.	379	552	655
N80 TYPE I	FULL LENGTH NORMALIZED OR NORMALIZED & TEMPERED AT MANUFACTURER'S OPTION	N.A.	SMLS / ERW	N.A.	N.A.	552	758	689
N80 Q	QUENCH & TEMPER	N.A.	SMLS / ERW	N.A.	N.A.	552	758	689
M65	SUBJECT TO MANUFACTURER'S OPTION	N.A.	SMLS / ERW	22	235	448	586	586
L80 TYPE I	QUENCH & TEMPER	566	SMLS / ERW	23	241	552	655	655
L80 9CR	QUENCH & TEMPER	593	SMLS	23	241	552	655	655
L80 13CR	QUENCH & TEMPER	593	SMLS	23	241	552	655	655
C90 TYPE I & 2	QUENCH & TEMPER	621	SMLS	25.4	255	621	724	689
C95	QUENCH & TEMPER	538	SMLS / ERW	N.A.	N.A.	655	758	724
T95 TYPE I & 2	QUENCH & TEMPER	649	SMLS	25.4	255	655	758	724
PI 10	QUENCH & TEMPER	N.A.	SMLS / ERW	N.A.	N.A.	758	965	862
Q125	QUENCH & TEMPER	N.A.	SMLS / ERW	N.A.	N.A.	862	1034	931



## Other Proprietary Grades and Connections

Proprietary Grades and Connections	Premier Connections	Other Types of Connections / Connectors
Grade: 1 Cr 11 Cr-110 13 Cr 15 Cr 17 Cr 22 Cr HP1-13Cr HP2-13Cr UHP-15Cr-125	Connections : JFE Bear JFE Fox JV-LW (Weld-on) Seal Lock APEX Seal Lock HT Seal Lock HC Seal Lock BOSS  Quick Connectors (Weld-on) : Leopard SD Multi-Thread Type S60 & S60D Multi-Thread Type D60 Multi-Thread Type E60	Two Step Connection Flush Connection High Torque / High Compression Connections Stab-In Connectors