

Material Grade: **EN19**

Associated Standard: **BS970: 1955**

**1. STEELMAKING**

	<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>S</u>	<u>P</u>	<u>Cr</u>	<u>Ni*</u>	<u>Mo</u>	<u>V*</u>
Min	0.35	0.10	0.50			0.90		0.20	
Max	0.45	0.35	0.80	0.05	0.05	1.50	0.40	0.40	0.05

(\* denotes residual element)

**2. TYPICAL MECHANICAL PROPERTIES**

Test type			Tensile and hardness test (at room temperature)						Impact test (Izod)
			Yield (Re)	Room Temp	UTS (Rm)	Elong (A)	R of A (Z)	Hardness	Room Temp
Variation	Sample dia	<i>Ft-lbs</i>	<i>TSI</i>	<i>TSI</i>	<i>TSI</i>	%	%	<i>HB</i>	<i>Ft-lbs</i>
Q+T 'R'	≤ 6"	Min	34		45	22		201	40
		Max						255	
Q+T 'S'	≤ 4"	Min	38		50	20		223	40
		Max						277	
Q+T 'T'	≤ 2½"	Min	44		55	18		248	40
		Max						302	
Q+T 'U'	≤ 2½"	Min	48		60	17		269	35
		Max						321	