

STEELS TABLE

ALLOY SPECIAL STEELS:

Steels with a complex chemical composition that helps achieving high mechanical properties.

CHEMICAL ANALYSIS FOR ALLOY SPECIAL STEELS

Steelgrade	CHEMICAL ELEMENTS (% on mass)												
	C		Si	Mn		P	S	Cr		Mo		Ni	
	Min.	Max.	Max.	Min.	Max.	Max.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
41Cr4	0.38	0.45	0.40	0.60	0.90	0.035	0.035	0.90	1.20	–	–	–	–
25CrMo4	0.22	0.29	0.40	0.60	0.90	0.035	0.035	0.90	1.20	0.15	0.30	–	–
30CrMo4	0.27	0.34	0.35	0.35	0.60	0.035	0.035	0.80	1.15	0.15	0.30	–	–
34CrMo4	0.30	0.37	0.40	0.60	0.90	0.035	0.035	0.90	1.20	0.15	0.30	–	–
42CrMo4	0.38	0.45	0.40	0.60	0.90	0.035	0.035	0.90	1.20	0.15	0.30	–	–
36CrNiMo4	0.32	0.40	0.40	0.50	0.80	0.035	0.035	0.90	1.20	0.15	0.30	0.90	1.20
30CrNiMo8	0.26	0.34	0.40	0.30	0.60	0.035	0.035	1.80	2.20	0.30	0.50	1.80	2.20
41NiCrMo7-3-2¹	0.38	0.44	0.30	0.60	0.90	0.025	0.025	0.70	0.90	0.15	0.30	1.65	2.00

¹Cu ≤ 0.25%





MECHANICAL PROPERTIES FOR ALLOY SPECIAL STEELS

Steel grade	Delivery condition	Yield strength min. (ReH) (N/mm ² =Mpa)				Tensile strength min. (Rm) (N/mm ² =Mpa)				Longitudinal elongation min. %				Longitudinal impact value		
		For nominal w.t. in mm												Temp. (°C)	W.T. (mm)	Min Value: (J min.)
		≤ 8	> 8 ≤ 20	> 20 ≤ 50	> 50 ≤ 80	≤ 8	> 8 ≤ 20	> 20 ≤ 50	> 50 ≤ 80	≤ 8	> 8 ≤ 20	> 20 ≤ 50	> 50 ≤ 80			
41Cr4	+QT	800	660	560	-	1000	900	800	-	11	12	14	-	+20	≤ 8	30
															> 8 ≤ 20	35
															> 20 ≤ 60	35
															> 60 ≤ 100	-
25CrMo4	+QT	700	600	450	400	900	800	700	650	12	14	15	16	+20	≤ 8	45
															> 8 ≤ 20	50
															> 20 ≤ 60	50
															> 60 ≤ 100	45
30CrMo4	+QT	750	630	520	480	950	850	750	700	12	13	14	15	+20	≤ 8	40
															> 8 ≤ 20	45
															> 20 ≤ 60	45
															> 60 ≤ 100	45
34CrMo4	+QT	800	650	550	500	1000	900	800	750	11	12	14	15	+20	≤ 8	35
															> 8 ≤ 20	40
															> 20 ≤ 60	45
															> 60 ≤ 100	45
42CrMo4	+QT	900	750	650	550	1100	1000	900	800	10	11	12	13	+20	≤ 8	30
															> 8 ≤ 20	35
															> 20 ≤ 60	35
															> 60 ≤ 100	35
36CrNi-Mo4	+QT	900	800	700	600	1100	1000	900	800	10	11	12	13	+20	≤ 8	35
															> 8 ≤ 20	40
															> 20 ≤ 60	45
															> 60 ≤ 100	45
30CrNi-Mo8	+QT	1050	1050	900	800	1250	1250	1100	1000	9	9	10	11	+20	≤ 8	30
															> 8 ≤ 20	30
															> 20 ≤ 60	35
															> 60 ≤ 100	45
41NiCr-Mo7-3-2	+QT	950	870	800	750	1150	1050	1000	900	9	10	11	12	+20	≤ 8	35
															> 8 ≤ 20	40
															> 20 ≤ 60	45
															> 60 ≤ 100	45

Note: the impact test is optional according to the norm, in case of need it has to be explicitly required.