

					Physical and mechanical properties			
V	Mo	Ni		N	E module in kN/mm ² at RT	working temperature C°	Thickness range mm	Procurement
-	max. 0.10	max. 0.40			206	-20...+100	0.2...7.0	easy
-	max. 0.10	max. 0.40			206		0.1...2.5	easy
-	max. 0.10	max. 0.40			206	-20...+100	0.1...1.5	easy
0.10...0.25	max. 0.10	max. 0.40			206	-50...+200	0.3...80	easy
-	max. 0.8	6.0...9.5		-	190	-200...+200	0.2...2.5	easy
-	-	6.5...7.8		-	195	-200...+300	0.2...4.0	difficult
-	2.0...2.5	10.0...13.0		max. 0.11	180	-200...+200	0.2...1.6	difficult
-	-	8.0...10.5		max. 0.11	185	-200...+200	0.2...1.6	difficult
0.25...0.35	0.80...1.20	0.30...0.80			216	-50...+500	1.5...20	easy
-	0.80...1.30	max. 1.0			215	-50...+400	0.3...6.0	easy
					115	-50...+100	0.1...6.0	easy
					135	-260...+200	0.1...2.5	easy
Si	Mn	Fe	Cu	Zr				
1.0 max.	1.0 max.	1.5 max.	0.2 max.	0.15 max.	220	-200...+700	until 6.35	difficult
0.50 max.	1.0 max.	5.0...9.0	0.5 max.	-	214	-200...+600	until 6.35	difficult
0.35 max.	0.35 max.	Rest	0.2 max.	-	199	-200...+600	until 6.35	difficult

With regard to the maximum working temperatures listed it must be taken into consideration that the setting height of the springs depends on the height of the tensions occurring and on the operating time on temperature. Furthermore, it has to be taken into consideration that with increasing temperature of the elasticity module of the material the strength diminishes. The operating temperature and thickness ranges can serve as reference values only. With heat-resistant steel grades, heat treatment and hardness deviate from the information given in the mentioned standards. In case of any queries regarding material grade selection, please contact our engineering department.