

50HS/1.5026/56SI7



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NAZWA GATUNKU: 50HS/1.5026/56SI7

NAZWA: SPRING STEEL

NORM: PN/EN 10132-4:2002U

ANMELDUNG

Steel susceptible to different types of springs (up to 6 mm) as leaf springs, helical springs and coil springs etc.

ZWISCHENPRODUKTE

taśmy

CHEMISCHE ZUSAMMENSETZUNG:

C	Mn	Si	P	S	Cr	Ni	Mo	W	V	Ti	Cu	Inne
0,52 – 0,60	0,60 – 0,90	1,60 – 2,00	Max 0,025	Max 0,025	0,9-1,2	Max 0,40	Max 0,10	-	-	-	-	-

MECHANISCHE EIGENSCHAFTEN:

Mechanical properties after the process of annealing or annealing and rolling for the product with thickness of 0.3 mm ≤ t < 3 mm						
Property	Symbol	Unit	After heat treatment			
Ultimate tensile strength	R _m	MPa	≤ 600			
Yield stress	R _e (R _{0.01})	MPa	≥ 740			
Elongation	A	%	≥ 12			
Percentage reduction of area	Z	%	-			
Hardness	HV	HV	≤ 230			
Mechanical properties after the process of cold rolling for the product thickness of 0.3 mm ≤ t < 3 mm						
Property	Symbol	Unit	Value			
Tensile strength	R _m	MPa	-			
Hardness	HV	HV	-			
Mechanical properties after the process of toughening for the product thickness of 0.3 mm ≤ t < 3 mm						
Property	Symbol	Unit	Value			
Ultimate tensile strength	R _m	MPa	1200 - 1700			
Hardness	HV	HV	370-520			
Effect of the cross-section on mechanical properties after the process of toughening						
Thickness, mm	0.3 ≤ 0.5	0.5 ≤ 0.75	0.75 ≤ 1	1 ≤ 1.5	1.5 ≤ 2	2 ≤ 3
Hardness HV	485-535	465-515	455-505	445-495	425-475	415-465

TECHNOLOGISCHE VERARBEITUNG:

Technological treatment processes			Possible application	Temperature, °C
Hot forming	Forging		-	-
	Rolling		+	(900 - 830)
Treatment	Heat treatment	Quenching	+	840-870/w,o
		Tempering	+	430 - 500
	Precipitation strengthening	Supersaturation	-	-
		Ageing	-	-
	Annealing	Normalising	+	(850 - 880)
		Soft annealing	+	(640 - 680)
Thermochemical treatment	Carburising		-	-
	Other		-	-

INTERNATIONALE STAHLSORTEN:

ISO		EN		Russia	
~59Si7	ISO 683-14: 1992	56Si7	EN 10132-4: 2000	~ 55S2	GOST 14959 1979
US		Japan		China	
~9255	ASTM A 29-99	-	-	~55Si2Mn	GB 1222-84