



STANDARD

CLASSIFICATION

FEATURES

UNI EN ISO 683-1: 2018

Steel rods, bars and wire for cold heading and cold extrusion - case hardening steels

Alloy special steel

C53E - Nr. 1.1210

Cr-Si, Cr-Mn, Cr-Mn-B, Cr-Si-Mn

CHEMICAL ANALYSIS

C	Si	Mn	P	S	Cr	Other
from 0,50 to 0,57	from 0,10 to 0,40	from 0,60 to 0,90	0,025 max	0,035 max	0,40 max	Cr+Mo+Ni = < 0,63
Mo	Ni	B	Cu	Al	Pb	
0,10 max	0,40 max	-	0,30 max	-	-	

MECHANICAL PROPERTIES

Diameter		As Hot Rolled (+U) or Rolled and peeled (+U +PE)		Annealed (+AC) or Annealed + Peeled (+AC +PE)		Cold Drawn (+U +C)		Cold Drawn and Annealed (+U +C +AC)		Cold Drawn then Annealed and Skin passed (+U +C +AC + LC)		Annealed and Cold Drawn (+AC +C)	
from	to	Rm (Mpa) max	Z (%) min	Rm (Mpa) max	Z (%) min	Rm (Mpa) max	Z (%) min	Rm (Mpa) max	Z (%) min	Rm (Mpa) max	Z (%) min	Rm (Mpa) max	Z (%) min
2	16	-	-	670	11	-	-	-	-	-	-	-	-
16	100	-	-	630	12	-	-	-	-	-	-	-	-

In case of specific needs, contact our sales offices to evaluate feasibility and agree on the values of Rm.

EQUIVALENT STEEL GRADES

EUROPE (EN)	GERMANY (DIN, WNr)	FRANCE (AFNOR)	ITALY (UNI)	CHINA (GB)	FINLAND (SFS)	INTERN (ISO)
C53E	Ck53	-	C53	-	-	C53E4
USA (SAE)	JAPAN (JIS)	UK (BS)	SPAIN (UNE)	SWEDEN (SS)	RUSSIA (GOST)	
1053	S53C	En43C	-	-	-	

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