



Quality 100Cr6 (EN ISO 683-17)

PROPERTIES AND EMPLOYEMENTS

Is it the most used steel for what concerns the fabrication of bearings and roller balls. For the construction of roller balls, this steel has a good hardenability, diameters up to 30 mm, good inalterability, excellent wear resistance at the hardened and stress relieved state and a good machinability with machine tools at the globular annealed state.

It is suitable for the construction of rolls for bearings of small and medium dimensions, ring nuts, balls and small rollers for cold rolling, spindles and cams for textile machineries.

CORRESPONDENCE TO INTERNATIONAL DESIGNATIONS

Quality	Europe	Germany		France	Spain	G.B.	USA
	EN	DIN	W.n.	AFNOR	UNE	B.S.	AISI/SAE
100Cr6	100Cr6	100Cr6	1.3505	100Cr6	F1310	535A99	52100

CHEMICAL COMPOSITION % (EN ISO 683-17)


Steel designation		Chemical composition										
Symbolic	Numeric	C	Si	Mn	P max	S max	Cr	Mo max	Ni	V	W	Al max
100Cr6	B1	0,93 ÷ 1,05	0,15 ÷ 0,35	0,25 ÷ 0,45	0,025	0,015	1,35 ÷ 1,60	0,10	-	-	-	0,050

Concentration limits of the elements that are not indicated in the table can be deduced in the en 10020 regulation.

MECHANICAL CHARACTERISTICS (EN ISO 683-17)

Steel quality	Bar's diameter	Tensile testing					Impact strength KCU min
		Unified tensile strength R		Deviation from proportionality $R_{p0,2 \text{ min}}$		Elongation A min	
	mm	N/mm ²	kgf/mm ²	N/mm ²	kgf/mm ²	%	J
16MnCr5	11 (30) (63)	1080÷1470 (830÷1130) -	110÷150 (85÷115) -	835 (590) -	85 (60) -	9 (10) -	30 (32,5) -

USUALLY AVAILABLE EX STOCK

M.T. Coloration	Quality	Heat treatment	Surface
	100Cr6	Soft-annealed	rolled drawn / peeled h11