

Datenblatt | Data sheet

Iron and steel materials

Material	1.3505	1.0616	1.1121	1.1141
AISI	52100	1085	1010 soft	1015
Name	UNI 100Cr6	C86D	C10	C15
Hardness	60 - 66 HRC	60 - 65 HRC	60 - 90 HRB	60 - 90 HRB
Density g/cm³	7,8	7,85	7,82	7,82
Operating temperature °C	-60 - 150	-40 - 500	-40 - 500	-40 - 932
Break load in traction MPa	2500 - 2600	700 - 800	200 - 300	200 - 300
Chemical composition in %				
C	0,95 - 1,05	0,8 - 0,93	0,08 - 0,13	0,12 - 0,18
Si	0,15 - 0,35	≤ 0,6	0,10 - 0,35	0,10 - 0,35
Mn	0,25 - 0,45	0,7 - 1	0,30 - 0,60	0,30 - 0,60
P	≤ 0,025	≤ 0,04	≤ 0,04	≤ 0,04
S	≤ 0,025	≤ 0,05	≤ 0,05	≤ 0,05
Cr	1,40 - 1,60			
Ni	≤ 0,3			
Mo	≤ 0,08			
Cu	≤ 0,2			
Available with				
Diameter (mm)	0,25 - 300	1,5 - 300	1,5 - 300	1,5 - 300
Diameter (in)	1/64 - 12	1/16 - 12	1/16 - 12	1/16 - 12
Precision grade	G10 - G1000	G28 - G1000	G100 - G1000	G100 - G1000
Description	Hardened surface, high wear resistance, good surface finish, low dimensional tolerances.	Hardened, high carbon content , high wear resistance, difficult to drill and weld.	Unhardened, low carbon content , drillable and weldable	Low carbon content , hardened surface
Field of application	Valves, quick connectors, precision ball bearings, vehicle and bicycles components, spray cans, guides for drawers, machine tools, mechanisms for locks, conveyor belts, sliding shoes, ballpoint pens, pumps, rotating wheels, measuring instruments, ball screws, household electrical appliances.	Bicycle accessories, spray cans, bearings & guides, machines for burnishing, polishing and grinding.	Bicycle components, chassis, wrought iron handicraft products, div. mechanisms, applications for welding work	Bicycle components, guides and wheels for furniture, chassis, various mechanisms, mixers in non-aggressive environment, lubricators and lubricating bushes, sliding shoes, chassis, conveyor belts and rollers, drum grinding