

TECHNICAL DATA SHEET

Carbon steel type C

General notes:

- » **Carbon style** (material number 1.1231, C67S, AISI 1070)
- » contains from 0,65 - 0,73 wt% carbon
- » magnetizable
- » will be hardened by heat treatment, max. hardness 60 HRC
- » poor resistance to corrosion
- » used where strength and/or hardness are of primary concern
- » typical applications include tweezers and cutting tools for the electronic industry, medical device manufacturers, watch-makers, jewelers applications

Composition

Component	Wt. %	Component	Wt. %	Component	Wt. %
C	0.65 - 0.73	Si	0.15 - 0.35	Cr	≤ 0.4
P	≤ 0.025	S	≤ 0.025		

Mechanical properties

Density	7.7 - 8.03 g/cm³
Hardness, Vickers	700 HV
Tensile strength, ultimate	533 - 534 MPa
0.2% Yield stress	358 - 365 MPa
Modulus of elasticity	200 GPa

Thermal properties

Coef. of lin. therm expansion	11 E-6/°C	20°C - 100°C
Coef. of lin. therm expansion	12 E-6/°C	20°C - 300°C
Specific heat capacity	0.50 J/(g K)	
Thermal conductivity	50 W/(m K)	

Electrical properties

Resistivity	0.17 - 0.23 E-4 Ohm.cm
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This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-Tek SA declines all responsibility from an improper use of the product described in this document.