

TECHNICAL DATA SHEET

Engineering coating type DR

General notes:

- » thermoplastic vulcanizate TPV
- » very soft and elastic, good tear resistance
- » outstanding abrasion/wear resistance (improved life-time)
- » good chemical resistance (oils, grease, fuels, acid, detergents and soaps)
- » good hydrolytic resistance (hot water)
- » electrically static dissipative, low surface resistivity (10^8 - 10^9 Ohm), ESD-safe material!
- » Ideal for repetitive handling tasks in specimen preparation, electronics, instrumentation, laboratories and forensics. Especially useful for handling ESD sensitive components or small static items

Mechanical properties

Hardness, Shore A	36	
Tensile Strength	20.3 kg/cm²	ASTM 412C, 23°C
Tear Strength	12.1 kg/cm	ASTM 624C, 23°C
Elongation at break	452.5 %	ASTM 412C, 23°C
Melt Flow Index	42E g/10min	ASTM D1238, 23°C

Melt Flow Index:

B: **125°C/2.16kg** C: **150°C/2.16kg** E: **190°C/2.16kg** G: **200°C/5kg**

Thermal properties

Continuous Use Temperature	50° C	96 h
Short Time Temperature	50° C	36 h

Electrical properties

Surface Resistivity	10^8-10^9 Ohm	ICE60093
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Other properties

Density	0.9 g/cm³	ASTM D792
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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.

TECHNICAL DATA SHEET

Carbon steel type C

General notes:

- » **Carbon style** (material number 1.1221, Ck60, AISI 1060)
- » contains from 0,57-0,65 wt% carbon
- » magnetizable
- » will be hardened by heat treatment, max. hardness 57 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, watch-makers, jewelers applications

Composition

Component	Wt. %	Component	Wt. %	Component	Wt. %
C	0.57-0.65	Si	0.15-0.35	Cr	≤0.4
P	≤0.035	S	≤0.035		

Mechanical properties

Density	7.9 g/cm³
Hardness, Vickers	55-57 HRC
Tensile strength, ultimate	850-1000 MPa
0.2% Yield stress	500 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	0.502 J/(g·K)	
Thermal conductivity	52 W/(m·K)	

Electrical properties

Resistivity	0.18 E-4 Ohm.cm
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