

**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	<b>36</b>	
Tensile Strength	<b>20.3 kg/cm<sup>2</sup></b>	ASTM 412C, 23°C
Tear Strength	<b>12.1 kg/cm</b>	ASTM 624C, 23°C
Elongation at break	<b>452.5 %</b>	ASTM 412C, 23°C
Melt Flow Index	<b>42E g/10min</b>	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	<b>50° C</b>	96 h
Short Time Temperature	<b>50° C</b>	36 h

## Electrical properties

Surface Resistivity	<b><math>10^8</math>-<math>10^9</math> Ohm</b>	ICE60093
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## Other properties

Density	<b>0.9 g/cm<sup>3</sup></b>	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**

# Stainless steel type SA

**General notes:**

- » **Low carbon austenitic steel** (Material number 1.4435, DIN X2CrNiMo18-14-3, AISI number 316L)
- » contains from 16.5 to 18.5 wt% chromium and has important quantities of nickel and molybdenum as additional alloying elements
- » non-magnetizable
- » good corrosion resistance to most chemicals, salts and acids
- » generally used where corrosion resistance and toughness are primary requirements
- » typical applications include tweezers for the electronic industry, watch-makers, jewelers and laboratory and medical applications in moderately aggressive chemical environments

## Composition

Component	Wt. %	Component	Wt. %	Component	Wt. %
<b>C</b>	≤0.03	<b>Si</b>	≤1.0	<b>Mn</b>	≤2.0
<b>P</b>	≤0.045	<b>S</b>	≤0.03	<b>Cr</b>	17.0-19.0
<b>Mo</b>	2.5-3.0	<b>Ni</b>	12.5-15.0		

## Mechanical properties

State	<b>annealed</b>
Density	<b>8.0 g/cm<sup>3</sup></b>
Hardness HB30	<b>≤ 215</b>
Hardness Rockwell B	<b>79</b>
Tensile strength, ultimate	<b>500-700 MPa</b>
Tensile strength, yield	<b>290</b>
0.2% Yield stress	<b>≥ 200 MPa</b>
Elongation, break	<b>40%</b>
Modulus of elasticity	<b>200 GPa</b>

## Thermal properties

Coef. of lin. therm expansion	<b>16.0 E-6/°C</b>	20°C-100°C
Coef. of lin. therm expansion	<b>17.0 E-6/°C</b>	20°C-300°C
Specific heat capacity	<b>0.50 J/(g·K)</b>	
Thermal conductivity	<b>15 W/(m·K)</b>	
Continuous use temperature	<b>350°C</b>	
Max service temperature, air	<b>925°C</b>	

## Electrical properties

Resistivity	<b>0.75 E-4 Ohm.cm</b>
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