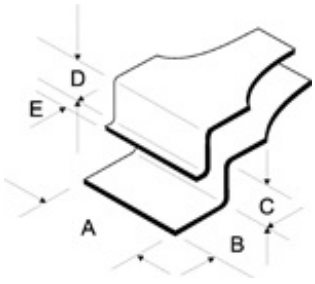
ideal-tek swiss made

4WFCPR Plastic Replaceable Wafer tips Tweezers

Platic replaceable tips tweezers for 4 inches wafer.

A 0.47" 12 mm
B 0.41" 10.5 mm
C 0.08" 2.0 mm
D 0.14" 3.5 mm
E 0.18" 4.5 mm



4WFCPR.SA	**Anti-Magnetic Anti-Acid Stainless Steel with ESD PEEK (CP) tips**

General notes *Plastic type CP*

- **PEEK** polyetheretherketone reinforced with carbon fibre
- very hard, rigid, high tensile and flexural strength, very high wear resistance
- high heat capability (260-300°C), good dimension stability, low thermal linear expansion coefficient
- excellent resistance to chemicals and aggressive agents, excellent resistance to thermal ageing
- ESD-safe material
- typical applications include handling of components in cleaning/chemical/assembly processes also at high temperature (soldering)

Mechanical properties

Flexural modulus +23°C:	21400 MPa	ISO 178 ASTM D 790
Flexural strength +23°C:	350 MPa	ISO 178 ASTM D 790
Tensile modulus +23°C:	24000 MPa	ISO 527 ASTM D 638
Tensile strength +23°C:	190 MPa	ISO 527 ASTM D 638
Izod - Impact strength (notched) +23°C	65 J/m	ISO 180/4A ASTM D 256

Thermal properties

Temp. of defl. under load (1.80 MPa):	300°C	ISO 75 ASTM D648
Continuous Use Temperature:	260°C	20'000 h
Short Time Temperature	300°C	

Electrical properties

Surface resistivity:	10^6 Ohm	
Decay time:	< 0.2 sec	1000-10 V

Other properties

Density	1.39 g/ccm	ISO 1183
Water absorption in water 23°C (24h)	0.01%	ISO 62

General Notes *Stainless steel type SA*

- 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.%
C	≤0.03	Si	≤1.0	Mn	≤2.0
P	≤0.045	S	≤0.03	Cr	17.0-19.0
Mo	2.5-3.0	Ni	12.5-15.0		

Mechanical properties:

State	annealed
Density	8.0 g/cm³
hardness HB30	≤215
Hardness Rockwell B	79
Tensile strength, ultimate	500-700 MPa
Tensile strength, yield	290
0.2% Yield stress	≤200 MPa
Elongation, break	40%
Modulus of elasticity	200 GPa

Thermal properties

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

Electrical properties

Resistivity	0.75 E-4 Ohm.cm

Credits