APSOplast® POM-C ED

Angst+Pfister

Engineering plastics technology
Technical Data Sheet

Application purpose and characteristics
POM-C ED is an excellent choice for retaining devices used for the conveyance of silicon wafers in production processes or for the manufacture of sensitive electronic components including hard disks and PCBs.
POM-C ED is an electrostatically dissipative material based on acetal. It is extremely suited to applications in conveyor technology. It avoids problems resulting from discharge on parts touched by people.

Material name, short description	POM-C
Material name, based on technical standards	Polyoxymethylene copolymer
Density	1.33 g/cm³
Color	natural (beige)
Compound code	POM-C ED.004-00

Mechanical properties

Modulus of elasticity & tension 1	1500 N/mm² ISO 527-1,-2
Tensile strength	38 N/mm² ISO 527-1,-2
Yield at break	38 N/mm² ISO 527-1,-2
Elongation at break	15 % ISO 527-1,-2
Compressive strength 1	14 N/mm² ISO 604 at 1% nominal strain
Compressive strength 2	25 N/mm² ISO 604 at 2% nominal strain
Compressive strength 3	38 N/mm² ISO 604 at 5% nominal strain
Hardness test value	106 Rockwell R ISO 2039-2
Ball indentation hardness	70 N/mm² ISO 2039-1
Impact strength	no break DIN EN ISO 179-1eU Charpy
Notch impact strength	8.00 kJ/m² DIN EN ISO 179-1eA Charpy

Thermal attributes

Min. operating temperature	-50 °C
Max. operating temperature long term	90 °C min. 20000 h
Max. operating temperature short term	140 °C
Coefficient of linear thermal expansion 1	150 * 10^{-6} K^{-1} Average between 23 and 100°C
Crystalline melting point	165 °C ISO 11357-1,-3 DSC, 10 °C/min

Electrical attributes

Dielectric dissipation factor 1	0.036 IEC 60250 at 1 MHz
Dielectric constant 1	4.3 DIN IEC 60250 at 1 MHz
Surface resistivity	≥10^{9} Ω ANSI/ESD STM 11.11

Other attributes

Moisture absorption	0.8 % at saturation in normal clima of 23°C / 50 % RF
Water absorption	10 % at saturation in water of 23°C

In compliance with **RoHS** and **REACH** directives.
This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.