PEEK Mod 65/36x3000 mm black

Article No.	P1501149

1. Technical Data Sheet

Property	Value	Unit	Test standard
Density	1.31	g/cm³	ISO 1183
Water absorption to saturation	0.2	%	ISO 62
Water Absorption to Saturation	0.45	%	ISO 62
Tensile Strength	112	MPa	ISO527-2
Modulus of elasticity (tensile)	4400	MPa	ISO 527-2
Breakdown Voltage	67	MPa	ISO 527
Break Elongation	20	%	ISO 527-2
Flexural Strength	110	MPa	ISO 527-2
Notched impact strength (Charpy)	3.5	kJ/m²	ISO 179/1eA
Impact Resistance (Charpy)	92	kJ/m²	ISO179/1eU
Hardness Shore D	90	° Shore D	DIN EN ISO 868
Ball pressure hardness	230	MPa	ISO 2039-1
Melting point	340	°C	ISO 3146
Maximal operating temperature (short-term)	291	°C	UL746B
Maximum Operating Temperature	245	°C	
Minimum temperature	-35	°C	
Heat deflection temperature (HDT/A)	160	°C	ISO 75-2
Heat deflection temperature (HDT/B)	240	°C	ISO 75
Vicat softening temperature (VST/B/50)	50	°C	ISO 306
Thermal Conductivity	0.25	W/(m·K)	DIN 52612
Thermal Expansion Coefficient	0.5	10^{-4}/K	DIN 11359
Dielectric Strength	24	kV/mm	IEC 60243-1
Volume Resistivity	10^{14}	Ω·cm	IEC 60093
Dielectric Constant (1 MHz)	3.6	-	IEC 60250
Dielectric Constant (100 Hz)	3.2	-	IEC 60250

Property	Value	Unit	Test standard
Dielectric loss factor (1 MHz)	0.0	-	IEC 60250
Dielectric loss factor (100 Hz)	0.0	-	IEC 60250
Surface Resistivity	10^{13}	Ω	IEC 60093
Comparative Tracking Index (CTI)	150	V	IEC 60112
Flammability Classification (UL 94)	0		UL 94

2. Chemical Resistance

● Resistant ● Partially resistant ● Not resistant

Chemical	Concentration	Resist.
1,4-Dioxane	100	●
2-Hydroxypropionic acid (lactic acid)	90	●
Acetic acid	100	●
Acetone	100	●
Ammonia	–	●
Ammonium chloride	–	●
Amyl alcohol	–	●
Apple juice	–	●
Benzene	–	●
Boric acid	100	●
Brake fluid	–	●
Butyl acetate	–	●
Calcium chloride	–	●
Carbon tetrachloride	–	●
Chlorine (gas)	100	●
Chlorobenzene	100	●
Chloroform	–	●
Citric acid	10	●
Cyclohexanone	100	●
Cyclohexene	100	●
Diesel	–	●
Diethylene oxide	–	●
Ethyl acetate	100	●

Chemical	Concentration	Resist.
Ethyl alcohol (ethanol)	96	🟢
Ethylene chloride	100	🟢
Food oil	–	🟢
Formaldehyde (aqueous)	40	🟢
Formic acid	10	🟡
Frost protection agent	–	🟢
Fuel oil	–	🟢
Fuel, aromatic free	–	🟢
Glycerine	100	🟢
Glycol	100	🟢
Heptane	100	🟢
Hydrochloric acid	10	🟢
Hydrochloric acid (concentrated)	–	🟡
Hydrofluoric acid	40	🔴
Hydrogen peroxide	10	🟢
Hydrogen sulfide (aqueous)	–	🟢
Isopropyl alcohol	100	🟢
Linseed oil	–	🟢
Mercurochrome	–	🟡
Methyl alcohol (methanol)	100	🟢
Methyl ethyl ketone (MEK)	100	🟢
Methylene chloride	100	🟢
Milk	–	🟢
Mineral oils (aromatic free)	–	🟢
Nitric acid	50	🟢
Nitric acid	10	🟢
Nitrobenzene	–	🟢
Oxalic acid	–	🟢
Ozone (gas)	–	🟢
Paraffin oil	100	🟢
Perchloroethylene	–	🟢
Petroleum	100	🟢

Chemical	Concentration	Resist.
Petroleum ether	100	🟢
Phenol (aqueous)	9	🟢
Phosphoric acid	50	🟢
Potassium hydroxide solution	50	🟢
Premium fuel	–	🟢
Propyl alcohol	–	🟢
Pyridine	–	🟢
Silicone oil	–	🟢
Sodium carbonate (aqueous)	–	🟢
Sodium chloride (aqueous)	–	🟢
Sodium hydrogen sulfite	–	🟢
Sodium hydroxide solution (caustic soda)	60	🟢
Sodium hydroxide solution (caustic soda)	15	🟢
Sodium nitrate (aqueous)	–	🟢
Sodium thiosulfate	–	🟢
Sulphuric acid	96	🔴
Tetrahydrofuran (THF)	100	🟢
Toluene	100	🟢
Transformer oil	–	🟢
Trichloroethylene	100	🟢
Vinegar (standard)	5-10	🟢
Water	–	🟢
Xylene	–	🟢