ISO-TECH Kunststoff GmbH

TECHNICAL DATA
ISO-MOL®

I. General characteristics			
	Norm	Unit	Value
1. Short sign	ISO 1043-1		PE-UHMW
2. Density	ISO 1183-1	g / cm^3	0,93
3. Molecular weight		Mio. g / mol	9,2
4. Water absorption (23 °C)	ISO 62	%	<0,01

II. Mechanical characteristics			
	Norm	Unit	Value
1. Elongation at tensile stress	ISO 527-2	MPa	≈20
2. Elongation at break	ISO 527-2	%	>200
3. Notched impact strength	ISO 179	kJ / m^2	o. B.
4. Ball indentation hardness	ISO 2039-1	MPa	>30
5. Shore D hardness	ISO 868		61
6. Wear resistance (Sand-Slurry-Test)	ISO 15527	%	73
7. Friction coefficient		µ	≈0,08
8. Compression strength	ISO 604	MPa	upon request
9. Modulus of elasticity (tensile test)	ISO 527-2	MPa	>700

III. Thermal characteristics			
	Norm	Unit	Value
1. Thermal conductivity at 23 °C	DIN 52612	W / (K x m)	0,4
2. Thermal expansion (long; 23 °C - 60 °C)	ISO 11359-2	10^{-5} K^{-1}	20
3. Application temperature short-term		°C	-200 / +90
4. Application temperature long-term		°C	-200 / +80
5. Flammability	UL 94		HB
6. Melting temperature	ISO 11357	°C	130 - 135

IV. Electrical characteristics			
	Norm	Unit	Value
1. Specific flow resistivity	IEC 60093	Ω x cm	≥10^{12}
2. Specific surface resistivity	IEC 60093	Ω	≥10^{12}
3. Dielectric strength	IEC 60243	kV / mm	≤45

V. Additional characteristics			
	Norm	Unit	Value
1. Food conformity	EU 10/2011 FDA		yes* yes*

*available upon request

All information is based on our current knowledge. It can therefore be described as applicable to a large extent, but is neither agreed nor guaranteed by this data sheet. On the finished product, some of these properties may differ from the stated values, especially since the data are largely based on data from raw material suppliers.