

Multilene® PE-M AS

A very hardwearing polyethylene, tough and impact resistant, even at low temperatures. The material has limited compressive strength (creep phenomena) and a high coefficient of expansion. The anti-adhesion properties are excellent as well as the chemical resistance. This material is ideally suited for cryogenic applications. Due to the fillers in the material, it has antistatic properties.

General properties	Test method	Value	Unit
ISO code:	ISO 1183		
Density:	ISO 1183-1	0,97	g/cm3
Water absorption in Air (23°C / 50% RH)	ISO 62	<0,01	%
Water absorption in Air (23°C / 100% RH)	ISO 62	<0,01	%
Resistance to hot water	n/a	+	
Weather resistance	n/a	-	
Mechanical properties			
Elongation at break:	ISO 527	>200	%
Ball indentation hardness	ISO 2039	34	MPa
Tensile modules of elasticity	ISO 527	700	MPa
Charpy impact strength - notched	ISO 179	No Break	kJ/m2
Charpy impact strength - unnotched	ISO 179	No Break	kJ/m2
Compressive stress at 1%	n/a	6	MPa
Coefficient of friction	ASTM D 1894	0,1-0,2	
Thermal properties			
Melting temperature	n/a	133	°C
Max. allowable service temp (short period)	n/a	120	°C
Max. allowable service temp (long period)	n/a	80	°C
Min. service temperature	n/a	-150	°C
Coefficient of linear expansion	n/a	180	x10 ⁻⁶ m/(m*K)
Flammability	UL94	HB	
Electrical properties			
Dielectric dissipation (at 1MHz)	ISO 60250	n/a	Ω
Electric strength	ISO 60243	n/a	kV/mm
Volume resistivity	ISO 60093	<10 ⁹	Ω.cm

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