Multilene® PE-M

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.

General properties	Test method	Value	Unit
ISO code:	ISO 1183		
Density:	ISO 1183-1	0,93	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 indention hardness	ISO 2039	30	MPa
Tensile modules of elasticity	ISO 527	680	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	135	°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	-250	°C
Coefficient of linear expansion	n/a	180	x10 -6 m/(m*K)
Flammability	UL94	HB	
Electrical properties			
Dielectric dissipation (at 1MHz)	ISO 60250	2,3	Ω
Electric strength	ISO 60243	44	kV/mm
Volume resistivity	ISO 60093	>10^14	Ω.cm

Date of issue: 4 May 2018