

## 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.

Color	: white, black, green, brown	Sheet	: 1 t/m 50 mm
Mechanical	: easy to machine, gives long chips	Rod	: 10 t/m 200 mm
Glue severability	: not possible	Tube	:
Weldability	: only under special conditions	Foil	:
Food contact	: FDA	Fixed formd	:

General properties	Test method	Value	Unit
ISO code	ISO 1183	UHMWPE	
Density	ISO 1183-1	0,93	g/cm <sup>3</sup>
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	-	
<b>Mechanical properties</b>			
Elongation at break	ISO 527	>200	%
Ball Indention Hardness	ISO 2039	30	MPa
Tensile modulus of elasticity	ISO 527	700	MPa
Charpy impact strength - notched	ISO 179	no break	kJ/m <sup>2</sup>
Charpy impact strength - unnotched	ISO 179	no break	kJ/m <sup>2</sup>
Compressive stress at 1%	n/a	6	MPa
Coefficient of friction	n/a	0.1~0.2	
<b>Thermal properties</b>			
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 <sup>-6</sup> m/(m*K)
Thermal conductivity at 23 °C	n/a	0.40	W/K.m.
Flammability	UL94	HB	
<b>Electrical properties</b>			
Dielectric Dissipation (@1MHz)	ISO 60250	2.3	Ω
Electric Strength	ISO 60243	45	kV/mm
Surface Resistivity	ISO 60093	10 <sup>^14</sup>	Ω.cm
<b>Optical properties</b>			
Light transmission	ASTM D1003		%
Refractive index	ISO 489		

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