INEOS STYROLUTION

CLEARLUX 816

Methyl Methacrylate Acrylonitrile Butadiene Styrene (MABS)

TECHNICAL DATASHEET

DESCRIPTION

Clearlux® 816 is a Methyl Methacrylate Acrylonitrile Butadiene Styrene (MABS) polymer. The grade offers a unique combination of excellent flow, high impact strength, heat resistance and good colorability. Food contact statements are avilable on request.

FEATURES

- Chemical resistance
- High flowability
- High surface quality
- Impact strength
- Transparency

APPLICATIONS

- Housings for electronics & household devices
- Food contact applications
- Cosmetic packaging
- Toys, sports & leisure
- Pens and pencils

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	16
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	8
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	no break
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m²	190
Tensile Modulus	ISO 527	MPa	1900
Tensile Stress at Yield, 23 °C	ISO 527	MPa	42
Tensile Strain at Yield, 23 °C	ISO 527	%	4
Tensile Strain at Break, 23 °C	ISO 527	%	20
Nominal Strain at Break, 23 °C	ISO 527	%	7.2
Flexural Modulus, 23 °C	ISO 178	MPa	1850
Flexural Strength	-	-	56
Hardness, Ball Indentation	ISO 2039-1	MPa	75
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	87
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	87

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Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature, B (0.45 MPa)	ISO 75	°C	93
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	80 - 100
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.54
Haze	ASTM D 1003	%	2
Light Transmission at 550 nm	ASTM D 1003	%	89
Other Properties			
Density	ISO 1183	kg/m³	1080
Water Absorption, Saturated at 23 °C	ISO 62	%	0.7
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	220 - 250
Mold Temperature Range	ISO 294	°C	44 - 70
Drying Temperature	-	°C	70
Drying Time	-	h	2