

STYRON™ 486M

High Impact Polystyrene Resin

Trinseo

Message:

STYRON™ 486M is a high-impact polystyrene resin with an excellent balance of toughness, stiffness, flow and heat resistance. It is suitable for both injection molding and extrusion applications.

Main Characteristics:

Good practical toughness

Easy processing

Complied with:

U.S. FDA 21 CFR 177.1640

Europe REGULATION (EC)10/2011

Consult the regulation for complete details.

Applications:

Audio enclosures

Small appliances

Media enclosures

Toys

Food containers

General Information			
UL YellowCard		E73656-249584	
Features	Food Contact Acceptable		
	Good Processability		
	Good Stiffness		
	Good Toughness		
	High Heat Resistance		
	High Impact Resistance		
Uses	Appliances		
	Containers		
	Housings		
	Toys		
Agency Ratings	EU No 10/2011		
	FDA 21 CFR 177.1640		
Forms	Pellets		
Processing Method	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ASTM D638
Compression Molded	1860	MPa	
Injection Molded	2100	MPa	
Tensile Strength			ASTM D638
Yield, Compression Molded	21.4	MPa	
Yield, Injection Molded	26.9	MPa	
Ultimate, Compression Molded	17.2	MPa	
Ultimate, Injection Molded	25.5	MPa	
Tensile Elongation			ASTM D638
Break, Compression Molded	35	%	
Break, Injection Molded	40	%	
Flexural Modulus			ASTM D790
Compression Molded	1950	MPa	
Injection Molded	2160	MPa	
Flexural Strength			ASTM D790
Compression Molded	38.6	MPa	
Injection Molded	50.3	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
Compression Molded	86	J/m	
Injection Molded	110	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	73.9	°C	
1.8 MPa, Annealed	97.2	°C	
Vicat Softening Temperature	102	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating ¹ (1.47 mm)	HB		UL 94
NOTE			

1.

This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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