

Zylar® 550

MBS

INEOS Styrolution

Zylar® 550 is a blend from styrene, butadiene and methylmethacrylate copolymer (MBS). Zylar® 550 is highly transparent, tough and shows a good chemical resistance. Depending on the application, it can be a low density alternative for polycarbonate, PET-G or transparent ABS (MABS). It is suitable for medical applications, food contact statements are available upon request. Zylar® 550 provides a good balance between transparency and toughness.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	55	cm³/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2100	MPa	ISO 527
Yield stress	28	MPa	ISO 527
Yield strain	2.2	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	4	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	70	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	81	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	73	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
UL recognition	yes	-	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.0	mm	-
UL recognition	yes	-	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.1	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1050	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	933	kg/m³	-
Thermal Conductivity of Melt	0.183	W/(m K)	-
Spec. heat capacity of melt	2160	J/(kg K)	-
Ejection temperature	89	°C	-

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Haze	1.5	%	ASTM D 1003
Light Transmittance	90	%	ASTM D 1003

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	65	°C	-
Pre-drying - Time	2	h	-
Melt temperature	200 - 240	°C	-
Mold temperature	30 - 55	°C	-

Characteristics
Processing

Injection Molding

Chemical Resistance

Radiation Resistance

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Delivery form

Pellets

Special Characteristics

Impact modified, Transparent, Sterilizable, Ethylene Oxide (EtO)
Sterilization, Gamma irradiation sterilization

Features

Copolymer

Certifications

Medical, Biocompatibility ISO 10993, US Pharmacopeia Class VI
Approved, Drug Master File, Long term supply assurance, Food
approval, Food approval 10/2011, Food Contact (FDA)

Applications

Medical

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 65°C

Pre-drying, Time: 2h

PROCESSING

Melt temperature, range: 200 - 240°C

Mold temperature, range: 30 - 55°C