Novodur® GP-22 Q459

ABS — INEOS Styrolution

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**19**	cm³/10min	ISO 1133
Temperature	**220**	°C	-
Load	**10**	kg	-
Molding shrinkage, parallel	**0.6**	%	ISO 294-4, 2577
Thermal conductivity of melt	**0.17**	W/(m K)	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2300**	MPa	ISO 527
Yield stress	**45**	MPa	ISO 527
Yield strain	**2.6**	%	ISO 527
Nominal strain at break	**10**	%	ISO 527
Charpy impact strength, +23°C	**180**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**100**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**22**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**8**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**26**	kJ/m²	ISO 180/1A
Izod notched impact strength	**8**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
Ball indentation hardness	**97**	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**94**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**99**	°C	ISO 75-1/-2
Vicat softening temperature, A	**105**	°C	ISO 306
Vicat softening temperature, B	**96**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**95**	E-6/K	ISO 11359-1/-2

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	**2.9**	-	IEC 62631-2-1
Relative permittivity, 1MHz	**2.8**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**48**	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	**79**	E-4	IEC 62631-2-1
Volume resistivity	**1E13**	Ohm*m	IEC 62631-3-1
Surface resistivity	**1E13**	Ohm	IEC 62631-3-2

Other properties	Value	Unit	Test Standard
Water absorption	**1**	%	Sim. to ISO 62
Humidity absorption	**0.22**	%	Sim. to ISO 62
Density	**1040**	kg/m³	ISO 1183
Bulk density	**600**	kg/m³	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Melt temperature	**220 - 260**	°C	-
Mold temperature	**30 - 60**	°C	-
Injection speed	**200**	mm/s	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Special Characteristics
High impact or impact modified, Heat stabilized or stable to heat

Applications
Automotive

Regional Availability
Europe, Near East/Africa