

CELANEX® 6407 | PBT | Mineral / Glass Reinforced

Description

Celanex 6407 is a 30% glass/mineral reinforced resin particularly suited for large exterior automotive components, where extended flow, flatness and good surface appearance is essential.

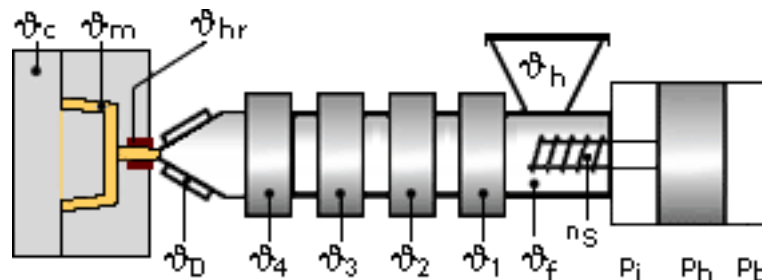
Physical properties	Value	Unit	Test Standard
Density	1510	kg/m ³	ISO 1183
Mold shrinkage - parallel	.3-.6	%	ISO 294-4
Mold shrinkage - normal	.98	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	8000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	85	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	2.1	%	ISO 527-2/1A
Flexural modulus (23°C)	8000	MPa	ISO 178
Flexural strength (23°C)	140	MPa	ISO 178
Charpy notched impact strength @ 23°C	6.0	kJ/m ²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	6.2	kJ/m ²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
DTUL @ 1.8 MPa	172	°C	ISO 75-1/-2
DTUL @ 0.45 MPa	209	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.19	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.7	E-4/°C	ISO 11359-2

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	7792-2	-	Internal
Injection molding melt temperature	260	°C	ISO 294
Injection molding mold temperature	82	°C	ISO 294
Injection molding flow front velocity	300	mm/s	ISO 294
Injection molding hold pressure	48	MPa	ISO 294

Typical injection moulding processing conditions



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Pre Drying:

Necessary low maximum residual moisture content: 0.02%

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 250°F (121°C) for 4 hours.

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

Drying time: 4 h

Drying temperature: 120 - 130 °C

Temperature:

	↻ Manifold	↻ Mold	↻ Melt	↻ Nozzle	↻ Zone4	↻ Zone3	↻ Zone2	↻ Zone1	↻ Feed	↻ Hopper
min (°C)	250	65	235	240	240	235	235	230	230	20
max (°C)	265	96	265	265	265	255	255	250	250	50

Speed:

Injection speed: medium-fast

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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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