Celanese
The chemistry inside innovation™

CELANEX® 3309HRLT

30% glass-fiber reinforced, hydrolysis resistant and laser transparent / laser weldable
Celanex® 3309 HRLT is a 30% glass reinforced grade. It offers excellent physical properties, good laser transparency and hydrolysis resistance for laser welding applications.

Rheological properties

Moulding shrinkage, parallel		%	ISO 294-4, 2577
Moulding shrinkage, normal		%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	10500	MPa	ISO 527-1/-2
Stress at break, 5mm/min	155	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.8	%	ISO 527-1/-2
Flexural Modulus	10000	MPa	ISO 178
Flexural Strength	245	MPa	ISO 178
Charpy notched impact strength, 23°C	11	kJ/m²	ISO 179/1eA

Thermal properties

Temp. of deflection under load, 1.8 MPa	205	°C	ISO 75-1/-2

Other properties

Density	1530	kg/m³	ISO 1183

Injection

Drying Temperature	80 - 120	°C
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	0.02	%
Max. mould temperature	65 - 110	°C
Injection speed	medium-fast	

Additional information

Injection molding

Rear Temperature 450-470(230-240) deg F (deg C)
Center Temperature 460-480(235-250) deg F (deg C)
Front Temperature 470-500(240-260) deg F (deg C)
Nozzle Temperature 480-500(250-260) deg F (deg C)
Melt Temperature 460-500(235-260) deg F (deg C)
Mold Temperature 150-200(65-93) deg F (deg C)
Back Pressure 0-50 psi
Screw Speed Medium
Injection Speed Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades. Up to 25%

Celanese
The chemistry inside innovation™

CELANEX® 3309HRLT

clean and dry regrind may be used.

Processing Texts

Pre-drying	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.
Longer pre-drying times/storage	For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.
Injection molding	Rear Temperature 450-470(230-240) deg F (deg C) Center Temperature 460-480(235-250) deg F (deg C) Front Temperature 470-500(240-260) deg F (deg C) Nozzle Temperature 480-500(250-260) deg F (deg C) Melt Temperature 460-500(235-260) deg F (deg C) Mold Temperature 150-200(65-93) deg F (deg C) Back Pressure 0-50 psi Screw Speed Medium Injection Speed Fast Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.
Injection molding Preprocessing	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 <-30°F (-34°C) at 250°F (121°C) for 4 hours.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Li Auto	Q/LiA5310038	2021 (V2)