

CELANEX® 2104UV

Unreinforced, impact modified, UV stabilized PBT

Celanex 2104UV is an unreinforced, impact modified, UV stabilized PBT designed for outdoor agricultural, industrial and automotive applications. Celanex 2104UV is suitable for injection molding applications.

Rheological properties

Melt mass-flow rate	3 g/10min	ISO 1133
Melt mass-flow rate, Temperature	250 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage range, parallel	2.2 - 3.3 %	ISO 294-4, 2577
Moulding shrinkage range, normal	2.2 - 3.3 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2100 MPa	ISO 527-1/-2
Yield stress, 50mm/min	46 MPa	ISO 527-1/-2
Yield strain, 50mm/min	10 %	ISO 527-1/-2
Nominal strain at break	>50 %	ISO 527-1/-2
Flexural Modulus	2080 MPa	ISO 178
Flexural Strength	63 MPa	ISO 178
Charpy impact strength, 23°C	NB kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	NB kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	15 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	6.9 kJ/m ²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	225 °C	ISO 11357-1/-3
Temp. of deflection under load, 0.45 MPa	130 °C	ISO 75-1/-2

Electrical properties

Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	3.5	IEC 62631-2-1
Dissipation factor, 100Hz	70 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200 E-4	IEC 62631-2-1
Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15 Ohm	IEC 62631-3-2
Electric strength	23 kV/mm	IEC 60243-1

Other properties

Density	1260 kg/m ³	ISO 1183
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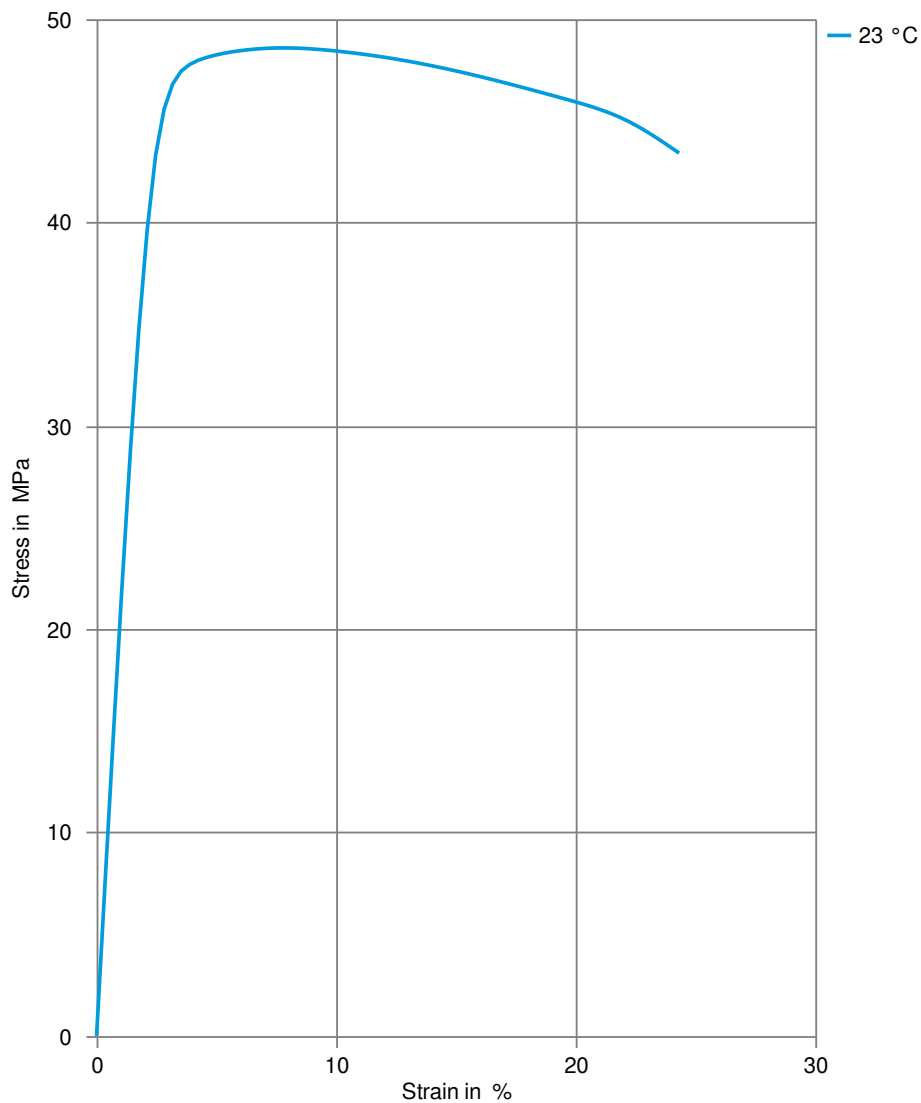


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Injection

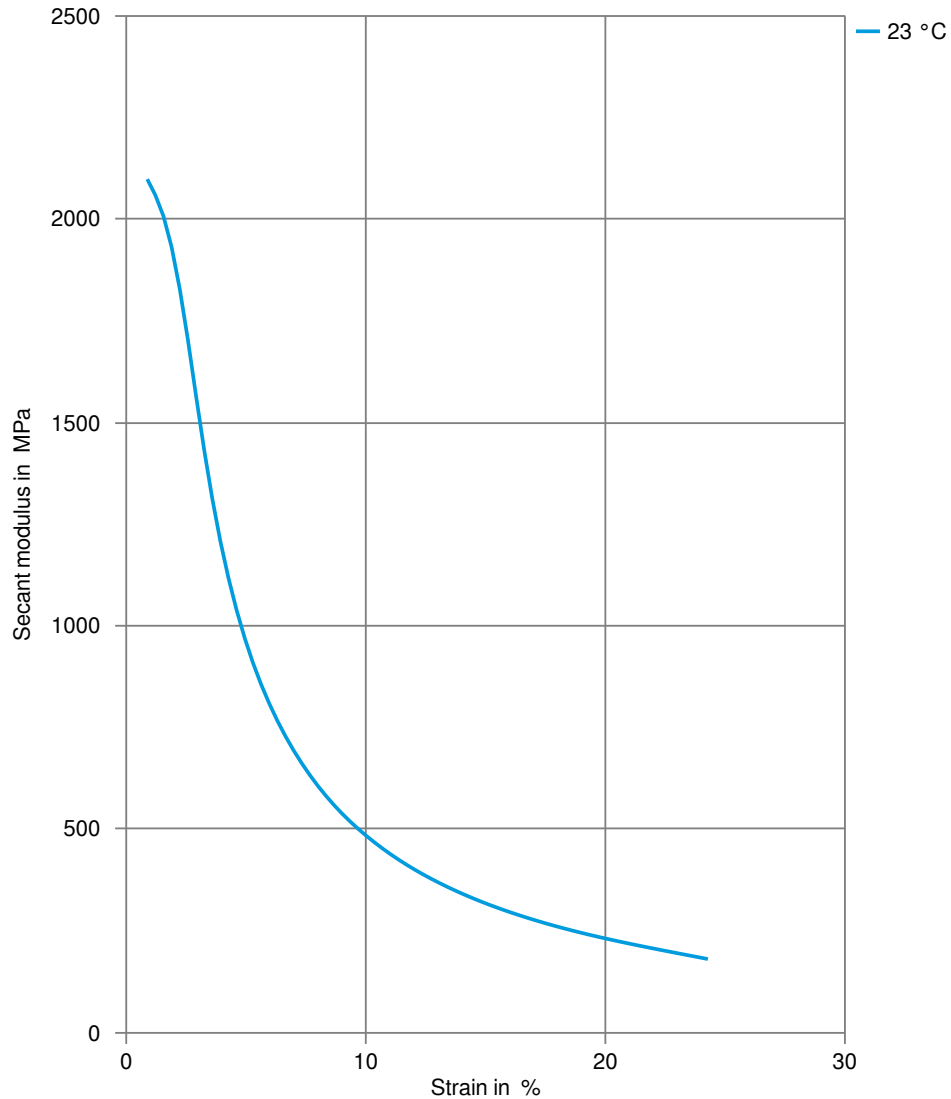
Drying Temperature	120 - 130 °C
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	0.02 %
Max. mould temperature	65 - 96 °C
Injection speed	medium-fast

Stress-strain



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Secant modulus-strain



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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.

