Celanese
The chemistry inside innovation™

VECTRA® S475

Super High Flow, High heat Resistance and Low Wrap for Thin Parts
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Vectra S475 is a 32% glass fiber and mineral reinforced grade.
Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant UL-Listing V-0 in natural and black at 0.1mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electricals 130°C, mechanicals 130°C. UL = Underwriters Laboratories (USA)

Rheological properties

Moulding shrinkage range, parallel		%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.4	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	13000	MPa	ISO 527-1/-2
Stress at break, 5mm/min	140	MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.9	%	ISO 527-1/-2
Flexural Modulus	13000	MPa	ISO 178
Flexural Strength	190	MPa	ISO 178
Charpy impact strength, 23°C	14.5	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	4	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	6	kJ/m²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	350	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	305	°C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	213	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	10	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	25	E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	0.10	mm	UL 94

Electrical properties

Relative permittivity, 1MHz	3.7		IEC 62631-2-1
Dissipation factor, 1MHz	80	E-4	IEC 62631-2-1
Relative permittivity, printed circuits and boards, 2.5 GHz	3.96		IEC 61189-2-721
Dissipation factor, printed circuits and boards, 2.5 GHz	15	E-4	IEC 61189-2-721

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Other properties

Density	1650	kg/m³	ISO 1183

Injection

Drying Temperature	150	°C	
Drying Time, Dehumidified Dryer	6	h	
Processing Moisture Content	0.01	%	
Melt Temperature Optimum	350	°C	Internal
Screw tangential speed	0.16 - 0.17	m/s	
Max. mould temperature	80 - 120	°C	
Back pressure	3	MPa	
Injection speed	medium		

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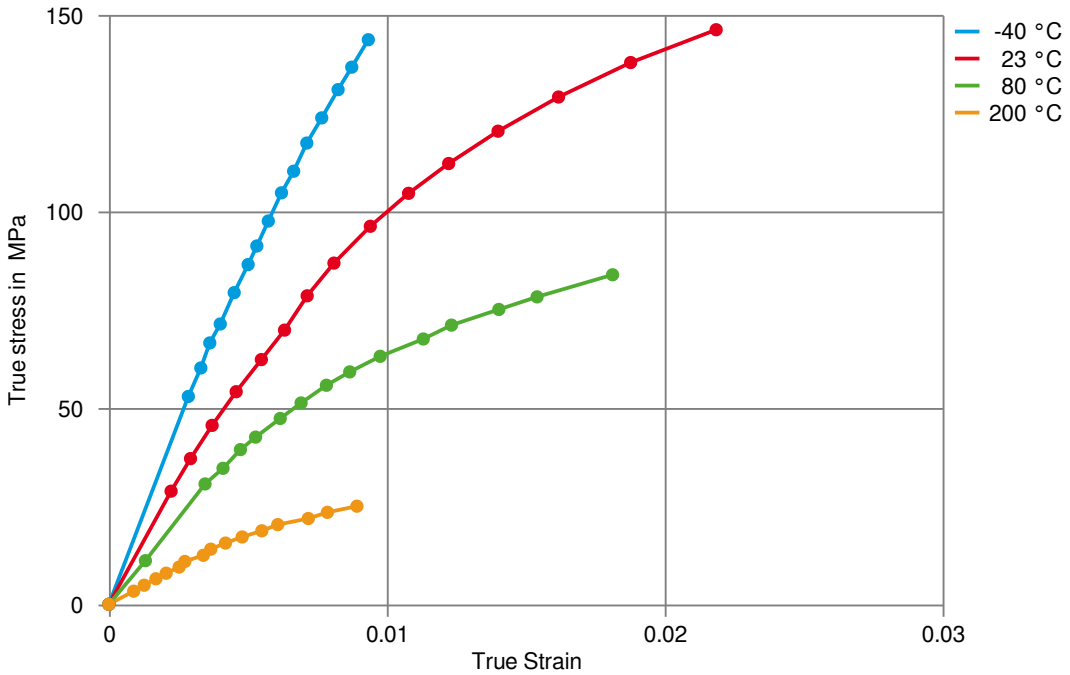
True stress-strain



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Processing Texts

Pre-drying	VECTRA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< - 40° C. The time between drying and processing should be as short as possible.
Longer pre-drying times/storage	For subsequent storage of the material in the dryer until processed the temperature does