Celanese
The chemistry inside innovation™

VECTRA® E115i

15% Glass Reinforced
15% glass reinforced
Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant. FDA compliant
UL-Listing V-0 black at 0.75mm thickness per UL 94 flame testing.
UL = Underwriters Laboratories (USA)

Typical mechanical properties

Tensile Modulus	13000	MPa	ISO 527-1/-2
Stress at break, 5mm/min	160	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2	%	ISO 527-1/-2
Flexural Modulus	13000	MPa	ISO 178
Flexural Strength	200	MPa	ISO 178
Charpy notched impact strength, 23°C	66	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	40	kJ/m²	ISO 180/1A
Izod impact strength, 23°C	101	kJ/m²	ISO 180/1U
Hardness, Rockwell, M-scale	43		ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	335	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	260	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	298	°C	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	0.75	mm	UL 94
UL recognition	yes		UL 94

Electrical properties

Relative permittivity, 1MHz	3.4		IEC 62631-2-1
Dissipation factor, 1MHz	340	E-4	IEC 62631-2-1
Dissipation factor, 1GHz	55	E-4	IEC 62631-2-1
Volume resistivity	>1E14	Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	33	kV/mm	IEC 60243-1
Relative permittivity, printed circuits and boards, 2.5 GHz	3.9		IEC 61189-2-721
Dissipation factor, printed circuits and boards, 2.5 GHz	60	E-4	IEC 61189-2-721

VECTRA® E115i

Other properties

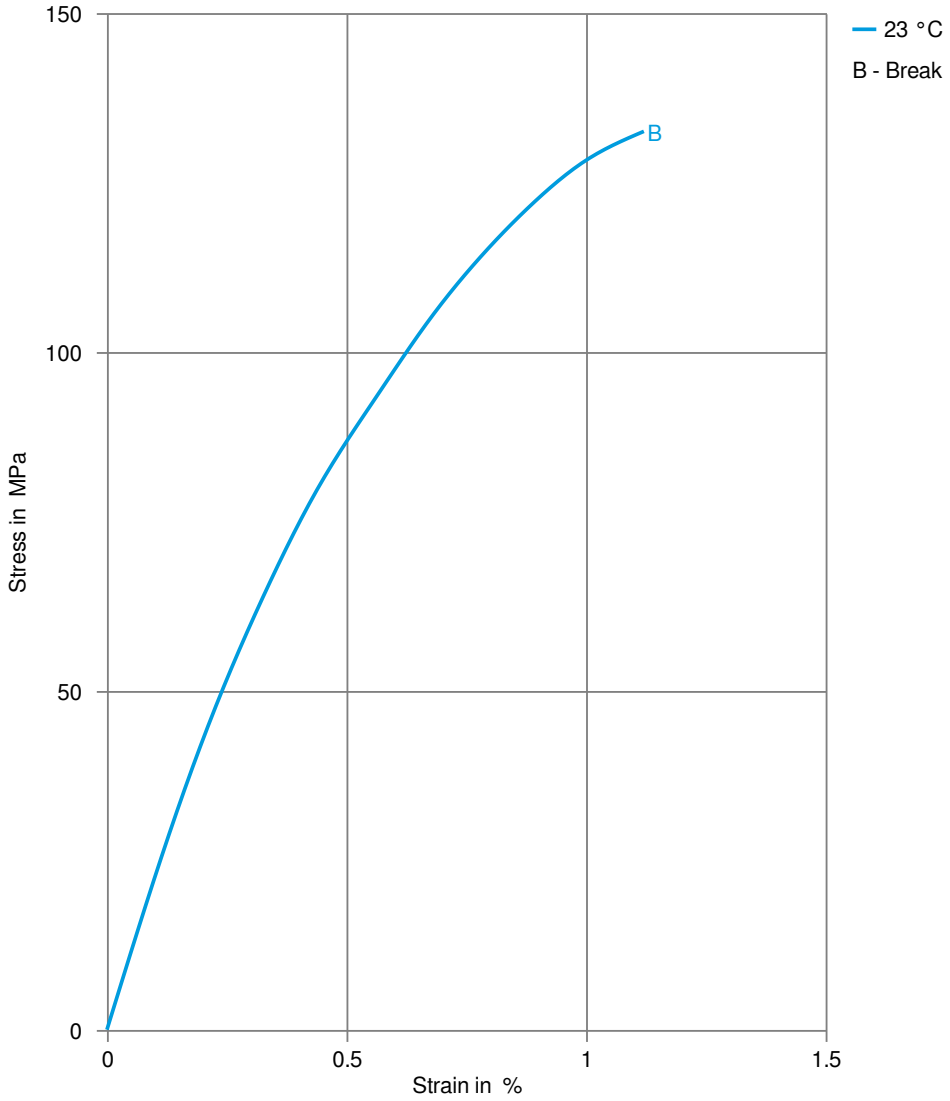
Density	1460	kg/m³	ISO 1183

Injection

Drying Temperature	150	°C	
Drying Time, Dehumidified Dryer	6	h	
Processing Moisture Content	0.01	%	
Melt Temperature Optimum	340	°C	Internal
Screw tangential speed	0.17 - 0.18	m/s	
Max. mould temperature	80 - 120	°C	
Back pressure	3	MPa	
Injection speed	high		

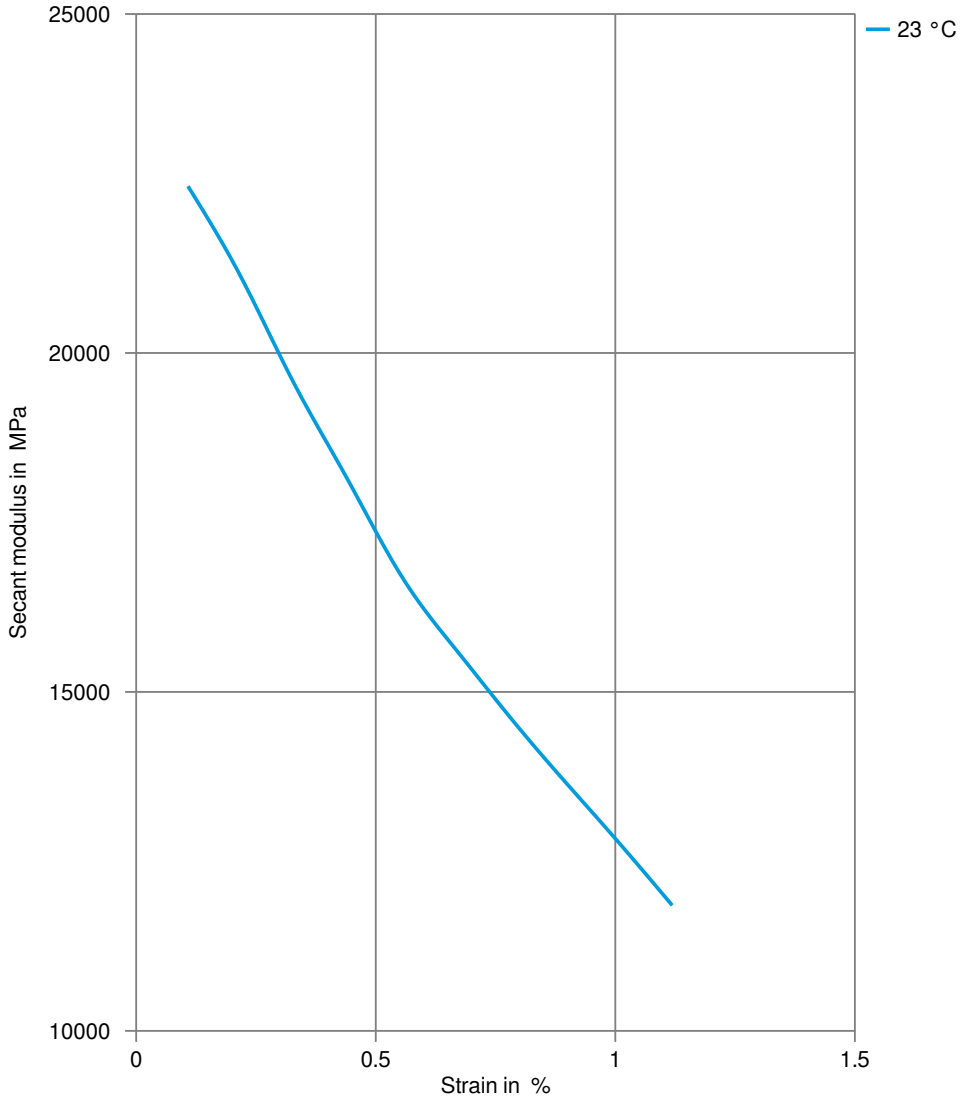
VECTRA® E115i

Stress-strain



VECTRA® E115i

Secant modulus-strain



VECTRA® E115i

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 not need to be lowered for grades A, B, C, D and V (<= 24 h).