

# VECTRA® E531i

Mineral filled grade with low warp, easy flow and smooth surface appearance  
 Mineral filled grade with low warp, easy flow and smooth surface appearance.  
 Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

## Rheological properties

Moulding shrinkage range, parallel	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 %	ISO 294-4, 2577

## Typical mechanical properties

Tensile Modulus	10000 MPa	ISO 527-1/-2
Stress at break, 5mm/min	120 MPa	ISO 527-1/-2
Strain at break, 5mm/min	3.5 %	ISO 527-1/-2
Flexural Modulus	10000 MPa	ISO 178
Flexural Strength	130 MPa	ISO 178
Charpy notched impact strength, 23°C	8 kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C	8 kJ/m <sup>2</sup>	ISO 180/1A

## Thermal properties

Melting temperature, 10°C/min	335 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	225 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	267 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	7 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	38 E-6/K	ISO 11359-1/-2

## Electrical properties

Volume resistivity	1E14 Ohm.m	IEC 62631-3-1
Surface resistivity	1E15 Ohm	IEC 62631-3-2

## Other properties

Density	1640 kg/m <sup>3</sup>	ISO 1183
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## Injection

Drying Temperature	150 °C	
Drying Time, Dehumidified Dryer	4 - 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	very fast	



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## Characteristics

Additives

Mineral Filler

## 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  $\leq -40^{\circ}\text{C}$ . 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 ( $\leq 24\text{ h}$ ).

## Other Approvals

Other Approvals

OEM	Specification	Additional Information
Mercedes-Benz Group (Daimler)	No Spec, special part approval	Lighting bezels
BMW	No Spec, special part approval	VE E531iD-3 VD3006 BLACK, EM-BMW-G60-5series-Marelli-Zlin Precision-inner/outer cover panel

