

VECTRA® FIT70 - LCP

Description

35% glass and mineral reinforced grade. It offers excellent flowability, low warpage, excellent surface appearance, excellent dimensional stability, and good weldline strength. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

Physical properties	Value	Unit	Test Standard
Density	1650	kg/m ³	ISO 1183
Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.4	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	11000	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	110	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	2.6	%	ISO 527-2/1A
Flexural modulus, 23°C	12000	MPa	ISO 178
Flexural strength, 23°C	140	MPa	ISO 178
Flexural strain at break	2.6	%	ISO 178
Charpy impact strength, 23°C	30	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	331	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	235	°C	ISO 75-1, -2
DTUL at 0.45 MPa	278	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.08	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	0.43	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Volume resistivity	2E14	Ohm*m	IEC 60093
Surface resistivity	6E15	Ohm	IEC 60093

Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Necessary low maximum residual moisture content	0.01	%	-
Drying time	6	h	-
Drying temperature	150 - 170	°C	-
Temperature	Value	Unit	Test Standard
Zone1 temperature	315 - 325	°C	-
Zone2 temperature	325 - 335	°C	-
Zone3 temperature	330 - 350	°C	-
Zone4 temperature	330 - 350	°C	-
Nozzle temperature	330 - 340	°C	-
Melt temperature	335 - 345	°C	-
Mold temperature	80 - 140	°C	-
Pressure	Value	Unit	Test Standard
Injection pressure	500 - 1500	bar	-
Speed	Value	Unit	Test Standard
Injection speed	medium-fast	-	-
Screw Speed	Value	Unit	Test Standard
Screw speed diameter, 16mm	200	RPM	-
Screw speed diameter, 25mm	140	RPM	-
Screw speed diameter, 40mm	100	RPM	-

VECTRA® FIT70 - LCP

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 ($\leq 24\text{ h}$).

Characteristics

Product Categories

Mineral/Glass reinforced