

VECTRA® FIT72 | LCP | Mineral / Glass Reinforced

Description

35% glass and mineral reinforced grade. It offers ultrahigh flowability, low warpage, and good mechanical property.

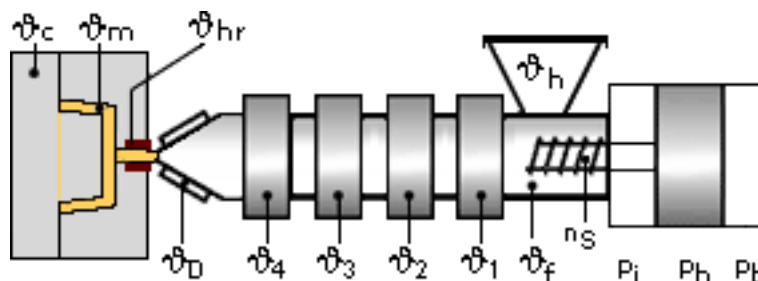
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant

Physical properties	Value	Unit	Test Standard
Density	1650	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.05	%	ISO 294-4
Mold shrinkage - normal	0.43	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	12000	MPa	ISO 527-2/1A
Tensile stress at break (50mm/min)	110	MPa	ISO 527-2/1A
Tensile strain at break (50mm/min)	2	%	ISO 527-2/1A
Flexural modulus (23°C)	12000	MPa	ISO 178
Flexural strength (23°C)	140	MPa	ISO 178
Flexural strain @ break	2.5	%	ISO 178
Charpy impact strength @ 23°C	30.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	8.0	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	331	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	240	°C	ISO 75-1/-2
DTUL @ 0.45 MPa	284	°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

Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.01%

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.

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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).

Drying time: 6 h

Drying temperature: 150 - 170 °C

Temperature:

	↺ Mold	↺ Melt	↺ Nozzle	↺ Zone4	↺ Zone3	↺ Zone2	↺ Zone1
min (°C)	80	335	330	330	330	325	315
max (°C)	130	345	340	350	350	335	325

Pressure:

	Inj press
min (bar)	500
max (bar)	1500

Speed:

Injection speed: medium-fast

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	200	140	100	-	-

Special Info:

When using short metering strokes an accumulator is recommended to get short injection times

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