

VECTRA® FIT70 | LCP | Mineral / Glass Reinforced

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

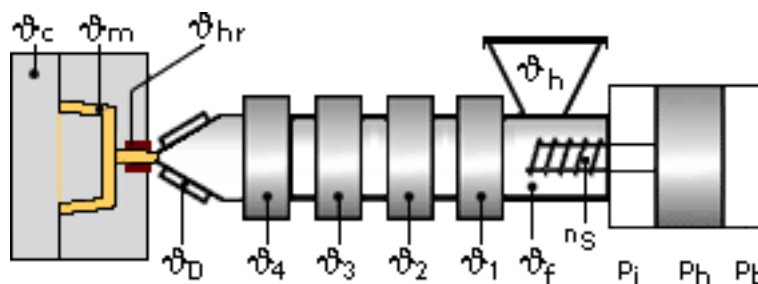
Physical properties	Value	Unit	Test Standard
Density	1650	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.05	%	ISO 294-4
Mold shrinkage - normal	0.43	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	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 @ break	2.6	%	ISO 178
Charpy impact strength @ 23°C	30.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	6.0	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	235	°C	ISO 75-1/-2
DTUL @ 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



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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.

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:

	ϕ Mold	ϕ Melt	ϕ Nozzle	ϕ Zone4	ϕ Zone3	ϕ Zone2	ϕ Zone1
min (°C)	80	335	330	330	330	325	315
max (°C)	140	345	340	350	350	335	325

Pressure:

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

Speed:

Injection speed: medium-fast

Screw speed

	16	25	40	55	75
Screw diameter (mm)					
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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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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