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

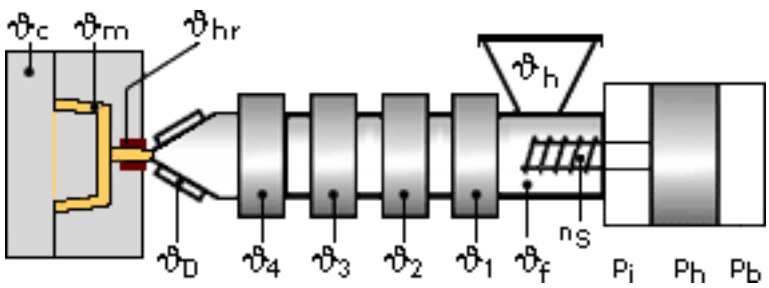
Physical properties	Value	Unit	Test Standard
Density	**1650**	kg/m³	ISO 1183
Mold shrinkage - parallel	**0.05**	%	ISO 294-4
Mold shrinkage - normal	**0.43**	%	ISO 294-4

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/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**6.0**	kJ/m²	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



VECTRA® FIT70 | LCP | Mineral / Glass Reinforced

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 =< - 40° 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:

	Mold	Melt	Nozzle	Zone4	Zone3	Zone2	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

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

Contact Information

Americas
8040 Dixie Highway, Florence, KY 41042 USA
Product Information Service
t: +1-800-833-4882 t: +1-859-372-3244
Customer Service
t: +1-800-526-4960 t: +1-859-372-3214
e: info-engineeredmaterials-am@celanese.com
Asia
4560 Jinke Road, Zhang Jiang Hi Tech Park
Shanghai 201203 PRC
Customer Service
t: +86 21 3861 9266 f: +86 21 3861 9599
e: info-engineeredmaterials-asia@celanese.com
Europa
Am Unisys-Park 1, 65843 Sulzbach, Germany
Product Information Service
t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011
e: info-engineeredmaterials-eu@celanese.co

VECTRA® FIT70 | LCP | Mineral / Glass Reinforced

General Disclaimer

This publication was printed based on Celanese's present state of knowledge, and Celanese undertakes no obligation to update it. Because conditions of product use are outside Celanese's control, Celanese makes no warranties, express or implied, and assumes no liability in connection with any use of this information. Nothing herein is intended as a license to operate under or a recommendation to infringe any patents.
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.
To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication.
Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards.
We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe, +1 859-372-3244 for the Americas and +86 21 3861 9266 for Asia) for additional technical information. Visit our web site for the appropriate Safety Data Sheets (SDS) before attempting to process our products. Feel free to call Customer Services for additional assistance.
The products mentioned herein are not intended for use in medical or dental implants.