

VECTRA® A440 - LCP

Description

All the characteristics of A130 with some added lubricity and flexibility. Suitable for applications requiring snap fit. Glass/PTFE filled. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

Physical properties	Value	Unit	Test Standard
Density	1650	kg/m ³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	16000	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	180	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	2,6	%	ISO 527-2/1A
Flexural modulus, 23°C	15000	MPa	ISO 178
Flexural strength, 23°C	245	MPa	ISO 178
Charpy impact strength, 23°C	37	kJ/m ²	ISO 179/1eU
Izod impact notched, 23°C	22	kJ/m ²	ISO 180/1A
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	280	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	230	°C	ISO 75-1, -2
Flammability @1.6mm nom. thickn.	V-0	class	UL 94
thickness tested (1.6)	1,5	mm	UL 94
UL recognition (1.6)	UL	-	UL 94
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	0,90	mm	UL 94
UL recognition (h)	UL	-	UL 94
Electrical properties	Value	Unit	Test Standard
Relative permittivity, 1MHz	2,8	-	IEC 60250
Dissipation factor, 1MHz	70	E-4	IEC 60250
Volume resistivity	1E12	Ohm*m	IEC 60093
Surface resistivity	>1E15	Ohm	IEC 60093
Electric strength	29	kV/mm	IEC 60243-1
Comparative tracking index	175	-	IEC 60112
Arc resistance	180	s	Internal
Typical injection moulding processing conditions	Value	Unit	Test Standard
Pre Drying			
Necessary low maximum residual moisture content	0,01	%	-
Drying time	4 - 6	h	-
Drying temperature	150	°C	-
Temperature	Value	Unit	Test Standard
Hopper temperature	20 - 30	°C	-
Feeding zone temperature	60 - 80	°C	-
Zone1 temperature	270 - 280	°C	-
Zone2 temperature	275 - 285	°C	-
Zone3 temperature	280 - 290	°C	-
Zone4 temperature	285 - 295	°C	-
Nozzle temperature	290 - 300	°C	-
Melt temperature	285 - 295	°C	-
Mold temperature	80 - 120	°C	-
Hot runner temperature	285 - 295	°C	-
Pressure	Value	Unit	Test Standard
Injection pressure	500 - 1500	bar	-
Hold pressure	500 - 1500	bar	-
Back pressure max.	30	bar	-
Speed	Value	Unit	Test Standard
Injection speed	very fast	-	-
Screw Speed	Value	Unit	Test Standard
Screw speed diameter, 16mm	200	RPM	-
Screw speed diameter, 25mm	140	RPM	-

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Screw speed diameter, 40mm

80

RPM

-

Other text information

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 (≤ 24 h).

Characteristics

Special Characteristics

Flame retardant, Light stabilized

Processing

Injection molding

Product Categories

Specialty

Delivery Form

Pellets

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

Europe

Am Unisys-Park 1
65843 Sulzbach, Germany
Product Information Service
t: +49-800-86427-531
t: +49-(0)-69-45009-1011
e: info-engineeredmaterials-eu@celanese.com

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