COOLPOLY® D5526

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CoolPoly® D5526 offers thermal conductivity, excellent mechanical strength, surface appearance, low warpage, and excellent dimensional stability. Application for this grade is for a part with thin wall design in automotive and electronics. The D series is electrically non-conductive and can be used for its dielectric properties.

Product information

Resin Identification	LCP-MD	ISO 1043
Part Marking Code	>LCP-MD<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.3	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.45E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	11900	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1/-2
Flexural modulus	1.45E6	psi	ISO 178
Flexural strength	15800	psi	ISO 178
Charpy impact strength, 23°C	6.18	ftlb/in²	ISO 179/1eU

Thermal properties

Temperature of deflection under load, 1.8 MPa	502	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.06	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.122	E-4/°F	ISO 11359-1/-2
Thermal conductivity, flow	4.8	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	3.4	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	0.8	W/(m K)	ISO 22007-2

Flammability

Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.0079	in	IEC 60695-11-10
UL recognition	yes		UL 94

Electrical properties

Volume resistivity	>1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	1040	kV/in	IEC 60243-1

Physical/Other properties

Density	0.0664	lb/in³	ISO 1183

Revised: 2025-12-22 Source: Celanese Materials Database

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Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	662	°F
Min. melt temperature	653	°F
Max. melt temperature	671	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	284	°F
Min. mold temperature	212	°F
Max. mold temperature	338	°F

Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, Low Warpage

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