

ForTii® LDS51B

PPA—GF30 FR(40)

30% Glass Reinforced, PA4T, Halogen free and free of red phosphorous, Certified V-0 at 0.4mm, Laser Direct Structuring (LDS)

ForTii® LDS51B is a truly reflow compatible and halogen-free flame retardancy grade. LDS51B has superior plating performance and is compatible with a broad range of laser settings enabling high resolution and fine line capability.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.3 / *	%	ISO 294-4
Molding shrinkage (normal)	1 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	11500 / 11800	MPa	ISO 527-1/-2
Tensile modulus (120°C)	6000 / –	MPa	ISO 527-1/-2
Tensile modulus (160°C)	3100	MPa	ISO 527-1/-2
Stress at break	110 / 100	MPa	ISO 527-1/-2
Stress at break (120°C)	57 / –	MPa	ISO 527-1/-2
Stress at break (160°C)	37	MPa	ISO 527-1/-2
Strain at break	1.6 / 1.6	%	ISO 527-1/-2
Strain at break (120°C)	3 / –	%	ISO 527-1/-2
Strain at break (160°C)	5	%	ISO 527-1/-2
Flexural modulus	11300 / 11600	MPa	ISO 178
Flexural strength	165 / 150	MPa	ISO 178
Flexural modulus (120°C)	6400	MPa	ISO 178
Flexural modulus (160°C)	3600	MPa	ISO 178
Charpy impact strength (+23°C)	26 / 26	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	3 / 3	kJ/m²	ISO 179/1eA

Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
THERMAL PROPERTIES			
<i>DRY / COND</i>			
Melting temperature (10°C/min)	325 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.3	E-4/°C	ASTM D696
Coeff. of linear therm. expansion (normal)	0.4	E-4/°C	ASTM D696
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	—	—
ELECTRICAL PROPERTIES			
<i>DRY / COND</i>			
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 62631-3-1
Comparative tracking index	400 / —	V	IEC 60112
Relative permittivity (1GHz)	4.13 / 4.23	—	IEC 61189-2-721
OTHER PROPERTIES			
<i>DRY / COND</i>			
Humidity absorption	1.3 / *	%	Sim. to ISO 62
Density	1580 / —	kg/m³	ISO 1183