



LNP™ THERMOCOMP™ Compound Lexan_JK500

Americas: COMMERCIAL

LNP™ Thermocomp™ Lexan_JK500 compound is a 10% GR, ECO conforming FR, PC+ABS for thinwall molding applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	690	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	690	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Modulus, 5 mm/min	49200	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1190	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	44200	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	70	MPa	ISO 527
Tensile Stress, break, 5 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.1	%	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	5250	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	115	MPa	ISO 178
Flexural Stress, break, 2 mm/min	115	MPa	ISO 178
Flexural Modulus, 2 mm/min	4590	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	32	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	138	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	21	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	110	°C	ASTM D 1525

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:
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THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	88	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	93	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.32E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	4.3E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.3E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	100	°C	ISO 306
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Specific Gravity	1.27	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.1 - 0.25	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.3 - 0.45	%	SABIC Method
Melt Flow Rate, 260°C/2.16 kgf	20	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/1.2 kgf	33	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.99	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80 - 90	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	24	hrs
Melt Temperature	270 - 310	°C
Nozzle Temperature	270 - 300	°C
Front - Zone 3 Temperature	270 - 300	°C
Middle - Zone 2 Temperature	270 - 290	°C
Rear - Zone 1 Temperature	260 - 275	°C
Mold Temperature	50 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	35 - 75	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.038 - 0.076	mm

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