



LNP™ THERMOCOMP™ Compound DX06313

Asia Pacific: COMMERCIAL

Polycarbonate base, 30% glass fiber reinforced, impact modified material. Thinwall housing, mobile phone. Some light color grades may have lower impact data than nature and black grade.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	1000	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.6	%	ASTM D 638
Tensile Modulus, 5 mm/min	76400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1730	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	71300	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	7420	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	170	MPa	ISO 178
Flexural Modulus, 2 mm/min	6650	MPa	ISO 178
IMPACT			
Izod Impact, notched, -30°C	12	cm-kgf/cm	ASTM D 256
Izod Impact, notched, 23°C (Natural & Black Colors)	19	cm-kgf/cm	ASTM D 256
Izod Impact, notched, 23°C (Light & White Colors)	9	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	244	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	16	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	12	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	142	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.8E-05	1/°C	ASTM E 831



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THERMAL			
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.8E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	142	°C	ISO 306
Vicat Softening Temp, Rate B/120	143	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.42	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.3 - 0.5	%	SABIC Method
Melt Flow Rate, 300°C/1.2 kgf	4.6	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/5.0 kgf	42	g/10 min	ASTM D 1238
Density	1.42	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.4	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	32	cm ³ /10 min	ISO 1133



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	48	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	315 - 340	°C
Nozzle Temperature	310 - 330	°C
Front - Zone 3 Temperature	315 - 340	°C
Middle - Zone 2 Temperature	305 - 325	°C
Rear - Zone 1 Temperature	295 - 315	°C
Mold Temperature	80 - 115	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm