



LNP™ THERMOCOMP™ Compound YF005

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound YF-1005

Product reorder name: YF005

LNP THERMOCOMP YF005 is a compound based on Polyester Elastomer resin containing 25% Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	470	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	460	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	9.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	24200	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	20100	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	46	MPa	ISO 527
Tensile Stress, break, 5 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	9.5	%	ISO 527
Tensile Strain, break, 5 mm/min	10.3	%	ISO 527
Tensile Modulus, 1 mm/min	2360	MPa	ISO 527
Flexural Stress	53	MPa	ISO 178
Flexural Modulus, 2 mm/min	2120	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	101	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	33	cm-kgf/cm	ASTM D 256
Multiaxial Impact	79	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	160	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	76	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	29	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	186	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	152	°C	ASTM D 648



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, flow	3.6E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.77E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	180	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	142	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.4	-	ASTM D 792
Density	1.4	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.31	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.41	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.1	%
Melt Temperature	215 - 240	°C
Front - Zone 3 Temperature	225 - 240	°C
Middle - Zone 2 Temperature	205 - 215	°C
Rear - Zone 1 Temperature	180 - 195	°C
Mold Temperature	25 - 55	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm