LNP™ THERMOCOMP™ Compound 2X98703

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound PDX-FP-E-98703

Product reorder name: 2X98703

LNP THERMOCOMP 2X98703 is a compound based on ETFE Copolymer resin containint Proprietary Filler(s).

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1020	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	990	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.6	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	144500	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1450	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	108000	kgf/cm²	ASTM D 790
Tensile Stress, yield, 5 mm/min	95	MPa	ISO 527
Tensile Stress, break, 5 mm/min	88	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5	%	ISO 527
Tensile Strain, break, 5 mm/min	5.5	%	ISO 527
Tensile Modulus, 1 mm/min	11220	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	135	MPa	ISO 178
Flexural Modulus, 2 mm/min	10440	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	49	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	41	cm-kgf/cm	ASTM D 256
Multiaxial Impact	81	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	203	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	88	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	34	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	248	°C	ASTM D 648

(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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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	214	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	239	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	187	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.73	-	ASTM D 792
Density	1.73	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.01	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Melt Temperature	315	°C
Front - Zone 3 Temperature	325 - 340	°C
Middle - Zone 2 Temperature	300 - 325	°C
Rear - Zone 1 Temperature	280 - 300	°C
Mold Temperature	90 - 120	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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