

LNP™ THERMOCOMP™ COMPOUND 2X04505

PDX-FP-E-04505
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP 2X04505 is a compound based on ETFE resin containing Proprietary Filler(s).

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	87	MPa	ASTM D 638
Tensile Stress, break	85	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	87	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	85	MPa	ASTM D 638
Tensile Strain, yield	4.5	%	ASTM D 638
Tensile Strain, break	4.8	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	4.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	15160	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	10340	MPa	ASTM D 790
Tensile Stress, yield	89	MPa	ISO 527
Tensile Stress, break	88	MPa	ISO 527
Tensile Strain, yield	4.6	%	ISO 527
Tensile Strain, break	4.9	%	ISO 527
Tensile Modulus, 1 mm/min	11580	MPa	ISO 527
Flexural Stress	319	MPa	ISO 178
Flexural Modulus	18800	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1030	J/m	ASTM D 4812
Izod Impact, notched, 23°C	272	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	18	J	ASTM D 3763
Multiaxial Impact	8	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	58	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	23	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	255	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	222	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.74E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.26E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	251	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Af
PHYSICAL			
Density	1.75	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	1 – 1.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.8 – 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.9	%	ISO 294
Density	1.74	g/cm ³	ISO 1183
MECHANICAL PROPERTIES			
Flexural modulus	10340	MPa	ISO 178/1A
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Melt Temperature	315	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	280 – 295	°C	
Mold Temperature	95 – 120	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	