

LNP* Lubricomp* Compound WCL36

Americas: COMMERCIAL

Also known as: WCL-4036
Product Reorder Name: WCL36

LNP* Lubricomp* WCL36 is a Thermoplastic Polyester (PBT) base resin containing Carbon Fiber and PTFE lubricant.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	125	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	125	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1	%	ASTM D 638
Tensile Modulus, 50 mm/min	23380	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	173	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	175	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	14900	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	130	MPa	ISO 527
Tensile Stress, break, 5 mm/min	121	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1	%	ISO 527
Tensile Strain, break, 5 mm/min	1	%	ISO 527
Tensile Modulus, 1 mm/min	20640	MPa	ISO 527
Flexural Stress	187	MPa	ISO 178
Flexural Modulus, 2 mm/min	18060	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	390	J/m	ASTM D 4812
Izod Impact, notched, 23°C	36	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	222	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	210	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.3E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	3.6E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	223	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.51	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.03	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 - 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 - 3	%	ASTM D 955
Wear Factor Washer	25	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	2 - 3	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.34	-	ASTM D 3702 Modified

Static COF	0.3	-	ASTM D 3702 Modified
Density	1.51	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62

Source GMD, last updated:10/30/2008

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05	%
Melt Temperature	240 - 265	°C
Front - Zone 3 Temperature	260 - 270	°C
Middle - Zone 2 Temperature	245 - 255	°C
Rear - Zone 1 Temperature	220 - 230	°C
Mold Temperature	80 - 100	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:10/30/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(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.

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