



LNP* Lubricomp* Compound VN001

Americas: COMMERCIAL

Lubricomp VL-4210 D is a lubricated, super tough nylon grade.

Property

Fensile Stress, yld, Type I, 5 mm/min	TYPICAL PROPERTIES (1)			
Fensile Stress, brk, Type I, 5 mm/min	MECHANICAL	Value	Unit	Standard
Fensile Strain, yld, Type I, 5 mm/min A0.6 ASTM D 638 Fensile Strain, brk, Type I, 5 mm/min A0.6 ASTM D 638 Fensile Strain, brk, Type I, 5 mm/min A0.6 ASTM D 638 Flexural Modulus, 50 mm/min Bill D MPa ASTM D 638 Flexural Modulus, 1.3 mm/min, 50 mm span Ippli MPa ASTM D 790 Fensile Stress, yield, 5 mm/min Fensile Stress, yield, 5 mm/min Fensile Stress, break, 5 mm/min S3 MPa ISO 527 Fensile Strain, break, 5 mm/min S2 ASTM D 838 Fensile Strain, break, 5 mm/min S2 BA ISO 527 Fensile Strain, break, 5 mm/min BB BB BB BB BB BB BB BB BB	Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D 638
Fensile Strain, brk, Type I, 5 mm/min 40.6 % ASTM D 638 Fensile Modulus, 50 mm/min 2290 MPa ASTM D 638 Fleavral Modulus, 1.3 mm/min, 50 mm span 1910 MPa ASTM D 790 Fensile Stress, yield, 5 mm/min 56 MPa ISO 527 Fensile Stress, break, 5 mm/min 53 MPa ISO 527 Fensile Strain, yield, 5 mm/min 5.2 % ISO 527 Fensile Strain, yield, 5 mm/min 28 % ISO 527 Fensile Strain, yield, 5 mm/min 28 % ISO 527 Fensile Strain, yield, 5 mm/min 28 % ISO 527 Fensile Strain, yield, 5 mm/min 28 % ISO 527 Fensile Strain, yield, 5 mm/min 28 % ISO 178 Flexural Strain, yield, 2 mm/min 4 % ISO 178 Flexural Strain, break, 2 mm/min 4 % ISO 178 Flexural Strain, break, 2 mm/min 4 % ISO 178 Flexural Modulus, 2 mm/min 4 % ISO 178 Flexural Modulu	Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D 638
Pensile Modulus, 50 mm/min 2290 MPa	Tensile Strain, yld, Type I, 5 mm/min	38	%	ASTM D 638
Persural Modulus, 1.3 mm/min, 50 mm span	Tensile Strain, brk, Type I, 5 mm/min	40.6	%	ASTM D 638
Fensile Stress, yield, 5 mm/min 56	Tensile Modulus, 50 mm/min	2290	MPa	ASTM D 638
Fensile Stress, break, 5 mm/min 53	Flexural Modulus, 1.3 mm/min, 50 mm span	1910	MPa	ASTM D 790
Fensile Strain, yield, 5 mm/min 5.2	Tensile Stress, yield, 5 mm/min	56	MPa	ISO 527
Fensile Strain, break, 5 mm/min 28	Tensile Stress, break, 5 mm/min	53	MPa	ISO 527
Fensile Modulus, 1 mm/min 2380 MPa	Tensile Strain, yield, 5 mm/min	5.2	%	ISO 527
Flexural Stress, yield, 2 mm/min 69 MPa ISO 178	Tensile Strain, break, 5 mm/min	28	%	ISO 527
Section Strain	Tensile Modulus, 1 mm/min	2380	MPa	ISO 527
ISO 178 ISO 180 ISO 178 ISO 180 ISO	Flexural Stress, yield, 2 mm/min	69	MPa	ISO 178
MPACT Value Unit Standard zod Impact, unnotched, 23°C 1730 J/m ASTM D 4812 zod Impact, notched, 23°C 158 J/m ASTM D 256 zod Impact, unnotched 80*10*4 +23°C 182 kJ/m² ISO 180/1U zod Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A THERMAL Value Unit Standard HDT, 0.45 MPa, 3.2 mm, unannealed 216 °C ASTM D 648 HDT, 1.82 MPa, 3.2mm, unannealed 65 °C ASTM D 648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 210 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 64 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 955 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 3702 Modified Opnamic COF	Flexural Strain, break, 2 mm/min	4	%	ISO 178
200d Impact, unnotched, 23°C 1730 J/m ASTM D 4812 200d Impact, notched, 23°C 158 J/m ASTM D 256 200d Impact, unnotched 80*10*4 +23°C 182 kJ/m² ISO 180/1U 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, notched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 kJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 180/1A 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 183 200d Impact, unnotched 80*10*4 +23°C 150 183 200d Impact, unnotched 80*10*4 +23°C 150 183 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 183 200d Impact, unnotched 80*10*4 +23°C 15 KJ/m² ISO 183 200d Impact, unnotched 80*10*4 +23°C 150 180/14 200d Impact, unnotched 80*10*4 150 180/14 200d Impact, unnotched 80*10*4 +23°C 150 180/14 200d Impact, unotched 80*10*4	Flexural Modulus, 2 mm/min	2080	MPa	ISO 178
200d Impact, notched, 23°C 158	IMPACT	Value	Unit	Standard
Iso 180/1U Iso 180/1A Iso	Izod Impact, unnotched, 23°C	1730	J/m	ASTM D 4812
ISO 180/1A ISO	Izod Impact, notched, 23°C	158	J/m	ASTM D 256
THERMAL Value Unit Standard HDT, 0.45 MPa, 3.2 mm, unannealed 216 °C ASTM D 648 HDT, 1.82 MPa, 3.2mm, unannealed 65 °C ASTM D 648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 210 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 64 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Izod Impact, unnotched 80*10*4 +23°C	182	kJ/m²	ISO 180/1U
HDT, 0.45 MPa, 3.2 mm, unannealed	Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
HDT, 1.82 MPa, 3.2mm, unannealed 65 °C ASTM D 648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 210 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 64 °C ISO 75/Af PHYSICAL Value Unit Standard Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	THERMAL	Value	Unit	Standard
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 210	HDT, 0.45 MPa, 3.2 mm, unannealed	216	°C	ASTM D 648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 64 CPHYSICAL Value Unit Standard Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, xflow, 24 hrs 2 - 5 Mold Shrinkage, xflow, 24 hrs 3 - 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 5 - ASTM D 3702 Modified Consity 1.1 g/cm³ ISO 1183	HDT, 1.82 MPa, 3.2mm, unannealed	65	°C	ASTM D 648
PHYSICAL Value Unit Standard Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Bf
Density 1.1 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Oynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	64	°C	ISO 75/Af
Moisture Absorption, 50% RH, 24 hrs 0.8 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	PHYSICAL	Value	Unit	Standard
Mold Shrinkage, flow, 24 hrs 2 - 5 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Density	1.1	g/cm³	ASTM D 792
Wold Shrinkage, xflow, 24 hrs 2 - 5 % ASTM D 955 Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Moisture Absorption, 50% RH, 24 hrs	0.8	%	ASTM D 570
Wear Factor Washer 71 10^-10 in^5-min/ft-lb-hr ASTM D 3702 Modified Dynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Mold Shrinkage, flow, 24 hrs	2 - 5	%	ASTM D 955
Oynamic COF 0.79 - ASTM D 3702 Modified Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Mold Shrinkage, xflow, 24 hrs	2 - 5	%	ASTM D 955
Static COF 0.36 - ASTM D 3702 Modified Density 1.1 g/cm³ ISO 1183	Wear Factor Washer	71	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Density 1.1 g/cm³ ISO 1183	Dynamic COF	0.79	-	ASTM D 3702 Modified
	Static COF	0.36	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH) 1.1 % ISO 62	Density	1.1	g/cm³	ISO 1183
	Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62

Source GMD, last updated:03/26/2008

Processing

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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