

# LNPT<sup>TM</sup> LUBRICOMP<sup>TM</sup> COMPOUND NX20BSR

## DESCRIPTION

LNP LUBRICOMP NX20BSR compound is based on a low-gloss black Polycarbonate / Acrylonitrile Butadiene Styrene (PC/ABS) blend with good Buzz, Squeak and Rattle (BSR) performance. Added features of this grade include: Low Slip-Stick, Internally Lubricated and Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate + ABS (PC+ABS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries, Automotive Interiors
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## TYPICAL PROPERTY VALUES

Revision 20241025

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Modulus, 1 mm/min	2170	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Stress, break, 50 mm/min	44	MPa	ISO 527
Tensile Strain, break, 50 mm/min	67	%	ISO 527
Flexural Modulus, 2 mm/min	2090	MPa	ISO 178
Tensile Modulus, 50 mm/min	2280	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	56	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	86	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2180	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched 80*10*4 +23°C	208	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	40	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, unnotched 80*10*4 -30°C	248	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 -40°C	14	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	402	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	49	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -40°C, V-notch Edgew 80*10*4 sp=62mm	16	kJ/m <sup>2</sup>	ISO 179/1eA

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched, 23°C	747	J/m	ASTM D256
Izod Impact, notched, -30°C	463	J/m	ASTM D256
<b>THERMAL <sup>(1)</sup></b>			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	104	°C	ISO 75 /Af
Vicat Softening Temp, Rate B/50	126	°C	ISO 306
Vicat Softening Temp, Rate B/120	124	°C	ISO 306
HDT, 0.45 MPa, 3.2 mm, unannealed	125	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	103	°C	ASTM D648
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.12	g/cm <sup>3</sup>	ISO 1183
Dynamic COF	0.33	-	ASTM D3702 Modified: Manual
Moisture Absorption, (23°C/50% RH/24 hrs)	0.097	%	ASTM D570
Mold Shrinkage, flow <sup>(2)</sup>	0.7 – 0.9	%	SABIC method
Mold Shrinkage, xflow <sup>(2)</sup>	0.8 – 1	%	SABIC method
Melt Volume Rate, MVR at 260°C/5.0 kg	21	cm <sup>3</sup> /10 min	ISO 1133
Melt Flow Rate, 260°C/5.0 kgf	23	g/10 min	ASTM D1238
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	105 – 110	°C	
Drying Time (Cumulative)	3 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	275 – 300	°C	
Front - Zone 3 Temperature	260 – 300	°C	
Middle - Zone 2 Temperature	255 – 295	°C	
Rear - Zone 1 Temperature	250 – 290	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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