

# LNPT™ COLORCOMP™ COMPOUND WX96084

NOT APPLICABLE TO WX96084-WH9A496

## DESCRIPTION

LNP COLORCOMP WX96084 is a compound based on Polybutylene Terephthalate (PBT) resin.

GENERAL INFORMATION	
Features	Chemical Resistance, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Industrial	Industrial General

## TYPICAL PROPERTY VALUES

Revision 20240408

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield, 5 mm/min	45	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	7	%	ISO 527
Tensile Strain, break, 5 mm/min	22	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Tensile Modulus, 5 mm/min	2300	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	17	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	8	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	30	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	45	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2100	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	70	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m <sup>2</sup>	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	25	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m <sup>2</sup>	ISO 179/1eU
Izod Impact, notched, 23°C	75	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1450	J/m	ASTM D4812
<b>THERMAL <sup>(1)</sup></b>			
Vicat Softening Temp, Rate B/50	180	°C	ISO 306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	55	°C	ISO 75 /Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75 /Bf
CTE, 23°C to 60°C, flow	1.5E-04	1 /°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.5E-04	1 /°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	180	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	54	°C	ASTM D648
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.3	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
Water Absorption, (23°C/saturated)	0.13	%	ISO 62-1
Mold Shrinkage, flow <sup>(2)</sup>	2.3	%	SABIC method
Mold Shrinkage, xflow <sup>(2)</sup>	2.2	%	SABIC method
Melt Volume Rate, MVR at 265°C/5.0 kg	90	cm <sup>3</sup> /10 min	ISO 1133
Specific Gravity	1.3	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.01	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.08	%	ASTM D570
Melt Flow Rate, 265°C/5.0 kgf	100	g/10 min	ASTM D1238
<b>INJECTION MOLDING <sup>(3)</sup></b>			
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	

- (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.

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