

## LNPTM THERMOCOMPTM COMPOUND MB006S

MB-1006 HS REGION EUROPE

## **DESCRIPTION**

LNP THERMOCOMP MB006S compound is based on Polypropylene (PP) resin containing 30% glass bead. Added features of this grade include: Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, Low Warpage, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Bead
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Sport/Leisure, Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## **TYPICAL PROPERTY VALUES**

Revision 20231109

PROPERTIES         TYPICAL VALUES         UNITS         TEST METHODS           MECHANICAL (1)         Tensile Stress, yield, 50 mm/min         25         MPa         ISO 527           Tensile Strain, yield, 50 mm/min         7.1         %         ISO 527           Tensile Modulus, 1 mm/min         1900         MPa         ISO 527           Flexural Stress, yield, 2 mm/min         36         MPa         ISO 178           Flexural Modulus, 2 mm/min         1700         MPa         ISO 180           IMPACT (1)         Izod Impact, unnotched 80°10°4 +23°C         20         Ix/m²         ISO 180/10           Izod Impact, notched 80°10°4 +23°C         4         Ix/m²         ISO 180/1A           THERMAL (1)         THERMAL (1)         ISO 180/1A           CTE, 23°C to 60°C, flow         1.07E-04         1/°C         ISO 11359-2           CTE, 23°C to 60°C, flow         1.2E-04         1/°C         ISO 175/Af           PHYSICAL (1)         Wold Shrinkage on Tensile Bar, flow (2)         1.2 - 1.6         %         SABIC method           Density         1.11         g/cm³         ISO 1183           INJECTION MOLDING (3)         THERMAL (1)         THERMAL (1)         THERMAL (1)				
Tensile Stress, yield, 50 mm/min         25         MPa         ISO 527           Tensile Strain, yield, 50 mm/min         7.1         %         ISO 527           Tensile Modulus, 1 mm/min         1900         MPa         ISO 527           Flexural Stress, yield, 2 mm/min         36         MPa         ISO 178           IMPACT (¹)         WPa         ISO 180/10           Izod Impact, unnotched 80*10*4+23°C         20         kJ/m²         ISO 180/10           Izod Impact, notched 80*10*4+23°C         4         kJ/m²         ISO 180/1A           THERMAL (¹)         I.O7E-04         I/°C         ISO 11359-2           CTE, 23°C to 60°C, flow         1.07E-04         1/°C         ISO 11359-2           CTE, 23°C to 60°C, flow         1.2E-04         1/°C         ISO 11359-2           HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm         62         °C         ISO 75/Af           PHYSICAL (¹)         X         SABIC method           Density         1.2 – 1.6         %         SABIC method           INJECTION MOLDING (³)         Y         ISO 1183           INJECTION MOLDING (³)         Y         ISO 1183	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Strain, yield, 50 mm/min         7.1         %         ISO 527           Tensile Modulus, 1 mm/min         1900         MPa         ISO 527           Flexural Stress, yield, 2 mm/min         36         MPa         ISO 178           Impact         ISO 178         ISO 178           Impact         Impact         Impact         Impact           Impact         Impact         Impact         Iso 180/10           Izod Impact, unnotched 80*10*4 + 23°C         20         kJ/m²         Iso 180/10           Izod Impact, notched 80*10*4 + 23°C         4         kJ/m²         Iso 180/10           THERMAL (¹¹)         Impact	MECHANICAL (1)			
Tensile Modulus, 1 mm/min         1900         MPa         ISO 527           Flexural Stress, yield, 2 mm/min         36         MPa         ISO 178           Flexural Modulus, 2 mm/min         1700         MPa         ISO 178           IMPACT (1)         Izod Impact, unnotched 80*10*4 + 23°C         20         KJ/m²         ISO 180/1U           Izod Impact, notched 80*10*4 + 23°C         4         KJ/m²         ISO 180/1A           THERMAL (1)         CTE, 23°C to 60°C, flow         1.07E-04         1/°C         ISO 11359-2           CTE, 23°C to 60°C, xflow         1.2E-04         1/°C         ISO 11359-2           HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm         62         °C         ISO 75/Af           PHYSICAL (1)         Wold Shrinkage on Tensile Bar, flow (2)         1.2 – 1.6         %         SABIC method           Density         1.11         g/cm³         ISO 1183           INJECTION MOLDING (3)         "C           Drying Temperature         80         °C	Tensile Stress, yield, 50 mm/min	25	MPa	ISO 527
Flexural Stress, yield, 2 mm/min   36   MPa   ISO 178     Flexural Modulus, 2 mm/min   1700   MPa   ISO 178     IMPACT (1)	Tensile Strain, yield, 50 mm/min	7.1	%	ISO 527
Flexural Modulus, 2 mm/min   1700   MPa   ISO 178     IMPACT (1)	Tensile Modulus, 1 mm/min	1900	MPa	ISO 527
IMPACT (1)   Izod Impact, unnotched 80*10*4 +23°C   20   kl/m²   ISO 180/1U     Izod Impact, notched 80*10*4 +23°C   4   kl/m²   ISO 180/1A     THERMAL (1)	Flexural Stress, yield, 2 mm/min	36	MPa	ISO 178
Izod Impact, unnotched 80*10*4 +23°C         20         kJ/m²         ISO 180/1U           Izod Impact, notched 80*10*4 +23°C         4         kJ/m²         ISO 180/1A           THERMAL (1)           CTE, 23°C to 60°C, flow         1.07E-04         1/°C         ISO 11359-2           CTE, 23°C to 60°C, xflow         1.2E-04         1/°C         ISO 11359-2           HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm         62         °C         ISO 75/Af           PHYSICAL (1)           Mold Shrinkage on Tensile Bar, flow (2)         1.2 - 1.6         %         SABIC method           Density         1.11         g/cm³         ISO 1183           INJECTION MOLDING (3)           Drying Temperature         80         °C	Flexural Modulus, 2 mm/min	1700	MPa	ISO 178
Izod Impact, notched 80*10*4 + 23°C	IMPACT (1)			
THERMAL (1)  CTE, 23°C to 60°C, flow  1.07E-04  1/°C  ISO 11359-2  CTE, 23°C to 60°C, xflow  1.2E-04  1/°C  ISO 11359-2  HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  62  °C  ISO 75/Af  PHYSICAL (1)  Mold Shrinkage on Tensile Bar, flow (2)  1.2 – 1.6  X  SABIC method  Density  1.11  INJECTION MOLDING (3)  Drying Temperature  80  °C	Izod Impact, unnotched 80*10*4 +23°C	20	kJ/m²	ISO 180/1U
CTE, 23°C to 60°C, flow       1.07E-04       1/°C       ISO 11359-2         CTE, 23°C to 60°C, xflow       1.2E-04       1/°C       ISO 11359-2         HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm       62       °C       ISO 75/Af         PHYSICAL (1)         Mold Shrinkage on Tensile Bar, flow (2)       1.2 – 1.6       %       SABIC method         Density       1.11       g/cm³       ISO 1183         INJECTION MOLDING (3)         Drying Temperature       80       °C	Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
CTE, 23°C to 60°C, xflow       1.2E-04       1/°C       ISO 11359-2         HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm       62       °C       ISO 75/Af         PHYSICAL (1)         Mold Shrinkage on Tensile Bar, flow (2)       1.2 – 1.6       %       SABIC method         Density       1.11       g/cm³       ISO 1183         INJECTION MOLDING (3)         Drying Temperature       80       °C	THERMAL (1)			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm       62       °C       ISO 75/Af         PHYSICAL (1)       SABIC method         Mold Shrinkage on Tensile Bar, flow (2)       1.2 – 1.6       %       SABIC method         Density       1.11       g/cm³       ISO 1183         INJECTION MOLDING (3)       Drying Temperature         B0       °C	CTE, 23°C to 60°C, flow	1.07E-04	1/°C	ISO 11359-2
PHYSICAL (1)           Mold Shrinkage on Tensile Bar, flow (2)         1.2 – 1.6         %         SABIC method           Density         1.11         g/cm³         ISO 1183           INJECTION MOLDING (3)           Drying Temperature         80         °C	CTE, 23°C to 60°C, xflow	1.2E-04	1/°C	ISO 11359-2
Mold Shrinkage on Tensile Bar, flow (2)  1.2 – 1.6  8 SABIC method  pensity  1.11  INJECTION MOLDING (3)  Drying Temperature  80  C  SABIC method  80  SABIC method  80	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	62	°C	ISO 75/Af
Density         1.11         g/cm³         ISO 1183           INJECTION MOLDING <sup>(3)</sup> °C           Drying Temperature         80         °C	PHYSICAL (1)			
INJECTION MOLDING <sup>(3)</sup> Drying Temperature 80 °C	Mold Shrinkage on Tensile Bar, flow (2)	1.2 – 1.6	%	SABIC method
Drying Temperature 80 °C	Density	1.11	g/cm³	ISO 1183
7 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	INJECTION MOLDING (3)			
	Drying Temperature	80	°C	
Drying Time 4 Hrs	Drying Time	4	Hrs	
Melt Temperature         225 – 250         °C	Melt Temperature	225 – 250	°C	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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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