LNP™ THERMOCOMP™ COMPOUND OFM46XXP

DESCRIPTION

LNP THERMOCOMP OFM46XXP compound is based on Polyphenylene Sulfide (PPS). Added features of this material include: high heat resistance, excellent dimensional stability and warpage control, low coefficient of thermal expansion.

GENERAL INFORMATION	
Features	Low Warpage, Electroplatable, Dimensional stability, High stiffness/Strength, High temperature resistance
Fillers	Glass Fiber, Mineral
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Wireless Communication

TYPICAL PROPERTY VALUES

Revision 20260409

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	148	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Modulus, 5 mm/min	13200	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	210	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	11800	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	142	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	13000	MPa	ISO 527
Flexural Strength, 2 mm/min	205	MPa	ISO 178
Flexural Modulus, 2 mm/min	11800	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	82	J/m	ASTM D256
Izod Impact, unnotched, 23°C	500	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	34	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	277	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	259	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Af
CTE			
-40°C to 90°C, flow	1.5E-05	1/°C	ASTM E831

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
-40°C to 90°C, xflow	3.2E-05	1/°C	ASTM E831
-40°C to 40°C, flow	1.5E-05	1/°C	ASTM E831
-40°C to 40°C, xflow	2.7E-05	1/°C	ASTM E831
-40°C to 90°C, flow	1.5E-05	1/°C	ISO 11359-2
-40°C to 90°C, xflow	3.1E-05	1/°C	ISO 11359-2
-40°C to 40°C, flow	1.5E-05	1/°C	ISO 11359-2
-40°C to 40°C, xflow	2.6E-05	1/°C	ISO 11359-2
Relative Temp Index, Elec [2]	130	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	130	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.6	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.01	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.02	%	ISO 62-4
Mold Shrinkage, flow [3]	0.3 – 0.4	%	SABIC method
Mold Shrinkage, xflow [3]	0.5 – 0.6	%	SABIC method
ELECTRICAL [1]			
Dielectric Constant			
1.9 GHz	3.9	-	SABIC method
5 GHz	3.93	-	SABIC method
Dissipation Factor			
1.9 GHz	0.0042	-	SABIC method
5 GHz	0.005	-	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104749132	-	-
UL Recognized, 94V-0 Flame Class Rating	2.0	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120 – 140	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.3	%	
Melt Temperature	300 – 340	°C	
Nozzle Temperature	320 – 340	°C	
Front - Zone 3 Temperature	310 – 330	°C	
Middle - Zone 2 Temperature	300 – 320	°C	
Rear - Zone 1 Temperature	290 – 320	°C	
Mold Temperature	130 – 150	°C	
Back Pressure	0.3 – 0.6	MPa	
Screw Speed	50 – 100	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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) 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.

© 2026 Copyright by SABIC. All rights reserved

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved