LNP™ LUBRICOMP™ COMPOUND HFG25Z

HFL-4325
REGION ASIA

DESCRIPTION

LNP* LUBRICOMP* HFG25Z is a compound based on Nylon 11 resin containing 25% Glass Fiber, 10% Graphite. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20181217

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	153	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	153	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	11030	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5520	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	76	MPa	ISO 527
Tensile Stress, break, 5 mm/min	76	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.3	%	ISO 527
Tensile Strain, break, 5 mm/min	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	6830	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	352	MPa	ISO 178
Flexural Modulus, 2 mm/min	18200	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	453	J/m	ASTM D 4812
Izod Impact, notched, 23°C	69	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	182	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	171	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.18E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.42E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	9.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	3.5E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	182	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	166	°C	ISO 75/Af
PHYSICAL			

© 2018 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.3	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow	0.47	%	SABIC method
Mold Shrinkage, xflow	0.93	%	SABIC method
Mold Shrinkage, flow, 24 hrs	0.4 – 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.8 – 1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.47	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.93	%	ISO 294
Wear Factor Washer	58	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.41	-	ASTM D 3702 Modified: Manual
Static COF	0.45	-	ASTM D 3702 Modified: Manual
Density	1.3	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	225 – 260	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Rear - Zone 1 Temperature	200 – 210	°C	
Mold Temperature	45 – 55	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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.

© 2018 Copyright by SABIC. All rights reserved