SABIC Innovative Plastics™

LNP* Lubricomp* Compound RFG16S

Americas: COMMERCIAL

Also known as: LUBRICOMP RFL-4316 HS BK8-115
Product Reorder Name: RFG16S

LNP* Lubricomp* RFG16S is a Nylon 6/6 compound containing Graphite Powder and Glass Fiber. Characteristics of this grade are Heat Stabilized and Internally Lubricated.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	169	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	169	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	11240	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	234	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	233	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8380	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	165	MPa	ISO 527
Tensile Stress, break, 5 mm/min	165	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	9630	MPa	ISO 527
Flexural Stress	232	MPa	ISO 178
Flexural Modulus, 2 mm/min	8450	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	685	J/m	ASTM D 4812
Izod Impact, notched, 23°C	0	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	46	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	257	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	248	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.74E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	6.62E+01	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	257	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	242	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.38	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.6	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 - 3	%	ASTM D 955
Wear Factor Washer	142	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified

Dynamic COF	0.4	-	ASTM D 3702 Modified
Static COF	0.37	-	ASTM D 3702 Modified
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.9	%	ISO 62

Source GMD, last updated:2009/04/21

Processing

Parameter Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	280 - 305	°C
Front - Zone 3 Temperature	295 - 305	°C
Middle - Zone 2 Temperature	280 - 295	°C
Rear - Zone 1 Temperature	265 - 275	°C
Mold Temperature	95 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:2009/04/21

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.
(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.