SABIC Innovative Plastics™

LNP* Thermocomp* Compound RF00A

Europe-Africa-Middle East: COMMERCIAL

Also known as: RF10010
Product Reorder Name: RF00A

50% glass fibre reinforced Polyamide 66 injection moulding resin.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break, 5 mm/min	210	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	14800	MPa	ISO 527
Flexural Stress, break, 2 mm/min	310	MPa	ISO 178
Flexural Modulus, 2 mm/min	13800	MPa	ISO 178
Hardness, Rockwell L	114	-	ISO 2039-2
IMPACT	Value	Unit	Standard
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	14	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	13	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	13	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	140	kJ/m²	ISO 179/1eU
THERMAL	Value	Unit	Standard
Thermal Conductivity	0.33	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	1.9E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	7.1E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	260	°C	ISO 306
Vicat Softening Temp, Rate B/120	260	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	262	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	258	°C	ISO 75/Ae
Relative Temp Index, Elec	65	°C	UL 746B
Relative Temp Index, Mech w/impact	65	°C	UL 746B
Relative Temp Index, Mech w/o impact	65	°C	UL 746B
PHYSICAL	Value	Unit	Standard
Mold Shrinkage on Tensile Bar, flow (2)	0.1 - 0.25	%	SABIC Method
Density	1.58	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	2.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.7	%	ISO 62
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	>1.E+16	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+16	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	19	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	3.4	-	IEC 60250
Relative Permittivity, 1 MHz	3.2	-	IEC 60250

Dissipation Factor, 50/60 Hz	0.0068	-	IEC 60250
Dissipation Factor, 1 MHz	0.015	-	IEC 60250
Comparative Tracking Index	500	V	IEC 60112
Comparative Tracking Index, M	350	V	IEC 60112
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	0.75	mm	UL 94
UL Recognized, 94HB Flame Class Rating 2nd value (3)	3	mm	UL 94
Glow Wire Flammability Index 650°C, passes at	2	mm	IEC 60695-2-12
Oxygen Index (LOI)	27	%	ISO 4589
FMVSS Burning Speed, thickness 2 mm	6	mm/min	FMVSS 302
FMVSS Burning Speed, thickness 3 mm	2	mm/min	FMVSS 302

Source GMD, last updated:11/04/2003

Processing

Parameter Injection Molding	Value	Unit
Drying Temperature	75 - 85	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.2	%
Melt Temperature	260 - 290	°C
Nozzle Temperature	250 - 270	°C
Front - Zone 3 Temperature	260 - 280	°C
Middle - Zone 2 Temperature	260 - 280	°C
Rear - Zone 1 Temperature	270 - 290	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	70 - 120	°C

Source GMD, last updated:11/04/2003

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.