SABIC Innovative Plastics™

LNP* Thermocomp* Compound DF004RXP

Americas: COMMERCIAL

20% Glass Fiber Reinforced Polycarbonate

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	105	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	6100	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	173	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	169	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6070	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	103	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3.3	%	ISO 527
Tensile Modulus, 1 mm/min	5720	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	163	MPa	ISO 178
Flexural Stress, break, 2 mm/min	163	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3.7	%	ISO 178
Flexural Modulus, 2 mm/min	5880	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	895	J/m	ASTM D 4812
Izod Impact, notched, 23°C	125	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	24	J	ASTM D 3763
Multiaxial Impact	5	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.89E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.39E+01	1/°C	ASTM D 696
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.352	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.13	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 - 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 - 0.8	%	ASTM D 955
Density	1.35	g/cm³	ISO 1183
Water Absorption, 23°C/24hrs	0.17	%	ISO 62-1

Source GMD, last updated:2009/01/27

Processing

Parameter Injection Molding	Value	Unit
Drying Temperature	120	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	305 - 325	°C
Front - Zone 3 Temperature	320 - 330	°C
Middle - Zone 2 Temperature	310 - 320	°C
Rear - Zone 1 Temperature	295 - 305	°C
Mold Temperature	80 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:2009/01/27

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.