

Product Information **Nypel®**
RC6030F BK



10/2023

PA6

Product description

Nypel® RC6030F BK is a 30% glass fiber reinforced, injection molding compound produced with 25% post-consumer recycled polymer content. This product is a regional grade available in North America only.

Nypel® RC6030F BK is generally recommended for applications such as bolts, racks, automotive underhood components, pressure regulator housings and caps.

Injection Molding

PROCESSING
injection molding, Melt temperature, range 270 - 295
injection molding, Mold temperature, range 80 - 95

Material Handling

Max. Water content: 0.15%

Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended. Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. In order to check the availability of products please contact us or our sales agency.

Product Information

Typical values for uncoloured product at 23 °C ¹⁾	Test method	Unit	Values ²⁾
Properties			dry / cond.
Polymer abbreviation	-	-	PA6
Filler content: Glass fiber (GF), glass balls (GB), Mineral (M)	-	%	GF30
Density	ISO 1183	kg/m ³	1350 / -
Water absorption, 24 h in water, 23 °C	ISO 62	%	1.1
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	1.9
Water absorption, equilibrium in water at 23°C	similar to ISO 62	%	6.7
Processing			
Melt temperature, Injection moulding/Extrusion	-	°C	270 - 295
Mould temperature, Injection moulding	-	°C	80 - 95
Mechanical properties			dry / cond.
Tensile modulus	ISO 527-1/-2	MPa	9660 / -
Yield stress, 50 mm/min	ISO 527-1/-2	MPa	154 / -
Yield strain, 50 mm/min	ISO 527-1/-2	%	2.5 / -
Flexural strength	ISO 178	MPa	230 / -
Flexural modulus	ISO 178	MPa	8380 / -
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m ²	56 / -
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m ²	8.5 / -
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m ²	8 / -
Thermal properties			dry / cond.
Melting temperature, DSC	ISO 11357-1/-3	°C	218
HDT A (1,80 MPa)	ISO 75-1/-2	°C	203
HDT B (0,45 MPa)	ISO 75-1/-2	°C	218
Coefficient of linear thermal expansion, longitudinal (23-80)°C	ISO 11359-1/-2	E-6/K	25
Coefficient of linear thermal expansion, transverse(23-80)°C	ISO 11359-1/-2	E-6/K	67

Footnotes

1) If product name or properties don't state otherwise.

2) The asterisk symbol "*" signifies inapplicable properties.