

# Nypel® RC6030TR BK

## Polyamide 6

### Product Description

Nypel RC6030TR BK is a 30% glass fiber reinforced, heat stabilized, black injection molding grade compound produced with at least 20% recycled PA6 feedstock. This product is a regional grade available in North America only.

### Applications

Nypel RC6030TR BK is generally recommended for applications such as bolts, racks, automotive components, industrial housings and caps.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.38	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23C		8,705	-
Tensile stress at break, MPa	527		
23C		128	-
Tensile strain at break, %	527		
23C		2.5	-
Flexural Strength, MPa	178		
23C		197	-
Flexural Modulus, MPa	178		
23C		7,860	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m <sup>2</sup>	180		
23C		7.2	-
-40C		5.6	-
Charpy Notched, kJ/m <sup>2</sup>	179		
23C		6.6	-
Charpy Unnotched, kJ/m <sup>2</sup>	179		
23C		47	-
-30C		42	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	220	-
HDT A, C	75	201	-



Melt Temperature 270-295 degC (518-563 degF)  
Mold Temperature 80-95 degC (176-203 degF)  
Injection and Packing Pressure 35-125 bar (500-1500 psi)

## **Mold Temperatures**

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 80-95 degC (176-203 degF) is recommended.

## **Pressures**

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. Minimal back pressure should be utilized to prevent glass breakage.

## **Fill Rate**

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate.

### **Note**

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