

Duramid N6

Description:

Duramid N6 is a utility grade low to medium viscosity general-purpose nylon 6 injection moulding homopolymer.

Properties:

Duramid N6 possesses the combination of strength, stiffness and toughness properties associated with nylon 6 as well as excellent chemical, thermal and abrasion resistance.

Processing Guidelines

Melt Temperature:

Duramid N6 exhibits a crystalline melting point of 215°C and a melt temperature range of 240°C-270°C is recommended for most applications.

Typical Temperature Profile:

Zone	°C
Rear	220-245
Middle	225-260
Front	240-270
Nozzle	240-270

Mould Temperature:

Mould temperatures of 82°C are generally recommended. However, surface temperatures of 10-95°C can be used where applicable.

Pressures:

Injection and packing pressures are generally within the limits of 500-1800 psi. Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final dimensions and can be effectively used in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

DBL International Inc.

Clos Marie-Therese 6
B-1970 Wezembeek-Oppem, Belgium
Tel: 02-731-3341
Fax: 02-731-4992

Fill Rate:

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Injection speeds of one inch ram travel per second serves as a guide.

Regrind:

Duramid N6 possesses excellent melt stability. Typical regrind levels are 25-30%. However, levels as high as 50% are not uncommon.

Material Handling:

Duramid N6 is supplied in sealed containers and drying prior to moulding is generally not required. If drying becomes necessary a dehumidifying or desiccant drier operating at 85°C is recommended. Drying time is dependent on moisture level and resin should be dried to less than 0.2% moisture. Further information on safe handling procedures can be obtained from the Product Material Safety Data Sheet.

Typical Physical Properties	DAM	ASTM Test
Tensile Strength	78 MPa	D-638
Flexural Strength	108 MPa	D-790
Flexural Modulus	2500 MPa	D-790
Notched Izod Impact Strength	52 J/m	D-256

The above specification are believed to be accurate. They are not intended as a representation of fact or warranty of any kind. Buyers must make their own representative test and assume all risks of use whether used alone or in combination with other products.