

NYLAFORCE®

PROCESSING GUIDELINES

NYLAFORCE®

GENERAL

For extrusion of **NYLAFORCE®** we recommend a three-section screw with a total length of 20-28D and a constant lead of 1D. The depth of flight ratio should be between 3:1 and 4:1. The flight depth of the screw depends on the screw diameter D as well as the melt viscosity. In case of a low melt viscosity the flight depth at the metering section should be minimized. To minimize the leakage flow, the radial screw clearance should be between 0.1-0.2 mm.

MATERIAL STORAGE AND DRYING

NYLAFORCE® resins are supplied dry (less than 0.2 % moisture by weight) and are ready to mold directly from the moisture-proof shipping containers. We recommend dry storage areas. The required final water content for best molding and part quality is less than 0.1 %, therefore we recommend pre-drying in a hopper dryer working with dehumidified air (dewpoint below - 20 °C) or an oxygen-free environment (vacuum oven) at 80 to 90 °C for 4 to 8 hours. After drying hygroscopic materials like nylon have to be protected against atmospherical moisture.

RECOMMENDED MACHINE PARAMETERS | TOOL TEMPERATURE

Parameter	Range
solid mass temperature NYLAFORCE® A	270 °C to 300 °C
solid mass temperature NYLAFORCE® B	240 °C to 290 °C
screw speed	20 – 60 1/min
melt pressure	50 MPa
feeder section	8 – 9 D
homogenizing section	4 – 6 D
metering section	8 – 13 D

The specified values are given as a guide only. The values actually required will be a function of the geometry and the desired quality of the injection moulded part, in particular.

August 2018

NYLAFORCE_Extr-processing-guidelines

Brenntag GmbH

Business Unit Polymers

Carl-Zeiss-Straße 2a - 4

66877 Ramstein-Miesenbach, Germany

Tel.: +49 6371 9635-0

Fax: +49 6371 9635-11

www.brenntag-gmbh.de