

FORMPOLY® NYLON12

GENERAL

FPL offers a wide range of Nylon12 grades from unfilled to glass fibre reinforced, including **FORMPOLY® N12GP30HM** which is unfilled Nylon 12 with high modulus and moderate mechanical properties.

FORMPOLY® N12GP30HM

- Higher Impact resistance
- Reduced sensitivity to notch
- Good finish and Gloss
- Easy flow and fast solidification
- High elongation
- Low density
- Excellent abrasion resistance
- Good fatigue behaviour
- High resistance to stress cracking

PACKING

FORMPOLY® N12GP30HM is supplied in 25 Kgs. dry, ready to mould, in sealed bags to prevent the uptake of moisture.

APPLICATION

- OFC Sheathing
- Pneumatic tubing
- Air break tubing
- Cable sheathing
- Noiseless Gear/clips
- Heater Wire insulation

Property	ASTM Method	Unit	N12GP30HM
Tensile Strength at Yield	D638	MPa	48
Tensile Strength at Yield after aging in Oil	D638	MPa	45
Elongation at Break	D638	%	300
Elongation at Break after aging in Oil	D638	%	260
Tensile Modulus	D638	MPa	1750
Flexural Strength	D790	MPa	60
Izod impact Strength at 23°C	D256	kg.cm/cm	NB
Izod impact Strength at -40°C	D256	kg.cm/cm	NB
Izod impact Strength-Notched at 23°C	D256	kg.cm/cm	10
Izod impact Strength-Notched at -40°C	D256	kg.cm/cm	7
Hardness	D2240	Shore D	75
Specific Gravity	D792	-	1.02
Moisture absorption after 24 hours	D570	%	0.1
Moisture absorption at Saturation	D570	%	0.6
Flammability	UL94	-	HB
Melting Point	D3418	°C	185

Conditioned test specimen. All results are measured under Dry-as-moulded natural test specimen Coloured grades would record slightly lower mechanical properties as permitted by ASTM D-4066

The information present here is for general guidance. It is given in good faith but no warrant is attached

FORMULATED POLYMERS LIMITED

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PROCESSING OF FORMPOLY NYLON 12

FORMPOLY® grades can be processed in extruders with min L/D of 24 with compression ratio of 3.0 to 3.5. Material can be processed with zone temperature from 230 C to 210.

PRE-DRYING

FPL grades can normally be taken for direct processing. However, in case the material is exposed to atmosphere, it is advisable to pre-dry the material at 80°C for 2 to 3 hours for good surface finish.

PROCESS PARAMETERS SUGGESTED

PROCESSING PARAMETERS	
ZONE1	190 -200°C
ZONE2	190-200°C
ZONE3	190 -200°C
ZONE4	200-215°C
Flange 1	200-215°C
Flange 2	200-215°C
Die	215-230°C
Vacuum	0.1 -0.2 bar
Water Temperature	15° c- 25°c

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ISO 9001:2015, IATF 16949: 2009 & ISO 14001: 2015 Certified Firm