

# FORMPOLY® NYLON12

## GENERAL

FPL offers a wide range of Nylon12 grades from unfilled to glass fibre reinforced, including **FORMPOLY® N12GP30** which is unfilled Nylon 12 with mechanical properties.

### FORMPOLY® N12GP30

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

## PACKING

**FORMPOLY® N12GP30** 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	N12GP30
Tensile Strength at Yield	D638	MPa	47
Tensile Strength at Break	D638	%	52
Elongation at Break	D638	%	>300
Tensile Modulus	D638	MPa	600
Izod impact Strength-Notched at 23°C	D256	kg.cm/cm	30
Hardness	D2240	Shore D	72
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

Manufacturers of Engineering Plastics Compounds

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

**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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