

Product: GenNex® PP25
GenNex Code: 3202



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GenNex® PP25 polypropylene primary insulation is a thermoplastic flame retardant primary insulation designed to perform in combination with fluorinated ethylene propylene (FEP) insulated pairs in a category style communication cable. The polypropylene flame retardant insulation serves to lower the cost of the final cable without impacting flame performance.

Key Features:

- High flame retardancy
- Excellent electrical properties
- Good processibility

Physical Properties:

Density:	1.45 g/cm ³
Tensile:	2000 psi (typical)
Elongation:	200% (typical)
Melt Index:	4.0 g/10 min.
Viscosity:	600 Nm

Combustion Properties:

Limited Oxygen Index (LOI):	36%
Cone Calorimeter (ASTM E1354):	
• Peak Heat Release (kW/m ²)	153
• Total Heat Release (MJ/m ²)	34
• Time to Flame Out (s)	555
• Total Smoke Release (m ² /m ²)	1519

Electrical Properties:

Dielectric Constant (DC):	2.84
Dissipation Factor (DF):	5.0 x 10 ⁻⁴

Suggested Running Conditions:

Extruder L/D:	20:1 or 25:1	Comp. Ratio:	3.0:1	Screen Pack:	20 Mesh or none
Screw Type:	Single Flight metering, without mixing section				
Feed Zone:	320°F	Center Zone:	330-340°F	Head/Die:	360°F
Screw Cooling:	165°F	Die Cooling:	Not recommended		
Gradient Cooling:	Recommended				

Processing Techniques:

The PP Primary material has been designed to process easily on standard extruders used in the production of wire and cable products. The material has been designed to process similar to standard Polyethylene or Polypropylene based materials. High compression screws without a mixing section are preferred. Melt Temperatures above 380°F (195°C) should be avoided. The material can be extruded at wall thicknesses of less than 10 mils with no issues. Gradient cooling is recommended to maintain maximum elongation values after extrusion. The material is supplied as free flowing pellets, packaged in sealed foil lined boxes. Gendon recommends the material be dried prior to use in a standard desiccant style dryer for a minimum of 4 hours at 140°F (60°C) prior to use.
