

HDP PE FR 1020

HIGH DENSITY POLYETHYLENE (HDPE) SHEATHING & JACKETING

Description

HDP PE FR 1020 is a Black Colored, High Intumescent char former, Flame Retardant HDPE Compound:

Processing

Good Processing Properties with Limitation on Speed of Extrusion

- Good Mechanical Properties
- Hot Deformation
- ESCR

Applications

PE FR 1020 is recommended for following applications:

- Jacketing of cables for power and OFC
- Can be used under severe conditions
- Can Tolerate Elevated Ambient Temperatures

Salient Features

Good Flame Retardant

- Well protected against UV degradation
- Good Weathering properties
- Confirms to ST 12 Requirements

Technical Specifications Sheet

Properties	Test Method	Unit	Typical Value
a) Physical			
Density	ASTM D 792	gm/cc	1.28 +/- 0.02
MFI (21.6 kg @160°C)	ASTM D 1238	g/10 min	>10
b) Mechanical			
Hardness	ASTM D 2240	Shore D	50 +/- 2
Tensile Strength (250mm/min)	ASTM D 638	Mpa	Min 13
Elongation at Break (250mm/min)	ASTM D 638	%	>300
Variation in Tensile Properties After heat ageing (10 days at 100°C)			
• Tensile Strength	ASTM D 638	%	±20
• Elongation	ASTM D 638	%	±20
c) Thermal			
Limiting Oxygen index	ASTM D 2863	%	Min 28
Halogen Acid Gas Generation	IEC 60754-1	%	Nil
Hot Pressure Test @ 150 ° C for 2 Hours	IEC – 60811 – 3- 1	%	Passes
Flame & Fire Propagation	EN 60332-1-2-c	-	Passes
5 ESCR (F50, 10% IgepalSoln, v/v)	ASTM D 1693B	Hours	>1000
Carbon black Content	ASTM D 1603	%	2.5 ± 0.02

Extrusion

The Product PE FR 1020 is Moisture Sensitive

We recommend Standard LSZH Screw without causing excessive Shear.

Gradient Cooling is Recommended

Minimum Draw down Ratio to be maintained.

Pre heating / Pre Drying at 80° C – 90° C for 4 to 6 hours Prior to Extrusion is recommended.

Processing Temperature 170° C – 200° C based on Machine Condition.

Notwithstanding the above, the type of Extruder, Die Design, and Cable Size will decide actual Extrusion Condition.

Packaging, Storage & Transport

Package	Net Weight 25 kgs	PP Laminated Bags 500/1200 kgs - PP based Jumbo Bags
Transport	Requirement	Keep away from the sunshine, rain & soaking during transport, as well as handle gently while carrying.
Storage	Environment	Clean, dry and ventilated ware house

Technical Assistance

Our technical team will be available for assistance on request.

Disclaimer

Revision 0: Nov 2022

The above mentioned recommendations are derived after various trails and checks conducted under different conditions. It is advised that the above stated information must be used as guidelines only. We suggest that the customer conducts their own trails and arrive at the optimum processing parameters which are best suited for their equipment and processing conditions. Sankhla does not take any responsibility for any sort of loss arising due to improper handling or usage of materials supplied.

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