

Flame Retardant Masterbatch / LINEX-80EN

Introduction:

80EN is a kind of halogen free flame retarding masterbatch with N and P, especially designed for, long fiber reinforced polyethylene and other advanced polyolefin product. 80EN contains acid source, gas source and carbon source, taking flame retarding effect by intumescent flame retarding mechanism. Flame retarded by 80EN, polyolefin and glass fiber reinforced polyolefin can reach UL 94 V-0 (1.5mm) and the LOI is no less than 32. The products with 80EN are characterized by low density and low smoke generation. Polyolefin with 80EN will not lead to the phenomenon of water-sliding surface during the process of extrusion due to its ammonium polyphosphate-free system with higher thermal stability, excellent dispersion and good performance in flame retarding. 80EN is mainly used in outer parts, inner decoration materials and flame retarding materials for motor cars.

Advantages:

- 80EN is halogen-free, low smoke, low toxicity and eco-friendly.
- For the high processing temperature of 80EN, it will not lead to the phenomenon of water-sliding surface.
- For its high content of phosphorus, 80EN has excellent performance in solid-phase flame retarding used in polyolefin product.

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Test Item	Unit	Target Value	DS ¹⁾	TD ²⁾
Appearance	_____	White Particle	☑	○
Carrier Resin	_____	LDPE	○	☑
FR Content	% (w/w)	79~80	☑	○
Density	g/cm ³	1.25-1.30	○	☑

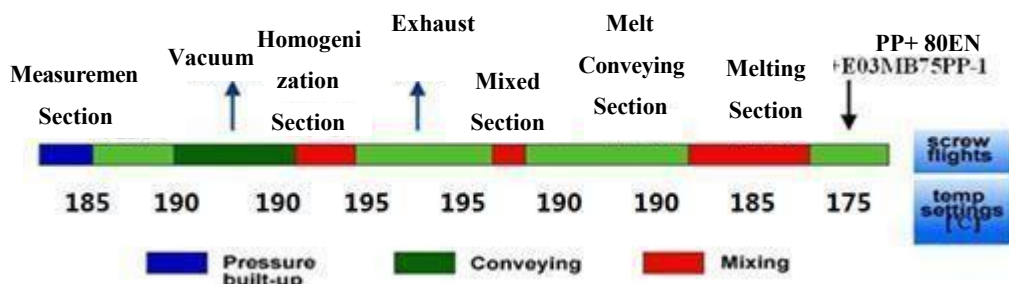
Note:

- 1) DS (Delivery specification): The product is monitored on a regular basis to ensure that it adheres to the specified values.
- 2) TD (Technical data): The technical data are used solely to describe the product and are not subject to regular monitoring.
- 3) ☑ means selected.

Recommended Dosage:

Resin	PP	PP+GF (15%)	PP+GF (20%)	PP+GF (25%)	PP+LGF (40%)	PP+LGF (50%)	PP+LGF (60%)
Dosage of 80EN %	30	30	30	32	22.5	22.5	22.5
UL 94(1.5mm) V-0	PASS	PASS	PASS	PASS	/	/	/
LOI	35	/	/	/	29	29.5	30

Extrusion Process: (Twin Screw Extruder)



Notes:

1. The decomposition temperature of 80EN in nitrogen is 280°C, thus the processing temperature of twin screw extruder can be adjusted higher accordingly. Sieves can be put on the head of machine. Maintaining vacuum of the twin screw extruder during the processing is also needed.
2. The substances which affect flame retardant performance: phthalocyanine green that contains Cl⁻¹ toner will make the flame retardant loss effect. Carbon black would have a bad effect on the flame retarding performance, so more flame retardant is required.
3. Acid-resistant processing machines have to be used for extrusion and molding since 80EN is acidic innature.

Package /Storage:

25kg/package. Transported as the common chemicals. Keep in dry, cool place and avoid direct sunlight.