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BU Additives and Adsorbents

Exolit® OP 1240

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Phosphinate flame retardant for polyester injection molding applications

Product Description

Exolit OP 1240 is a flame retardant based on an organic aluminum phosphinate which is a thermally stable white solid without any hazard classification or labeling. It can be easily compounded into polyesters and subsequently processed again to manufacture flame retarded parts used in consumer or industrial products.

For more details see our Innovation Spotlight video.

Benefits

- Non-hygroscopic, insoluble in water and organic solvents
- High efficiency due to its high phosphorus content
- UL 94 V-0 rating down to 0.4 mm thickness
- Suitable for PET sheet extrusion
- Suitable for both glass fibre reinforced and unreinforced grades
- The flame retarded polyester compounds exhibit good physical and excellent electrical properties
- Good colorability
- Versatile use with synergists
- Non-halogenated flame retardant with favorable environmental and health profile

Specifications

Characteristics	Unit	Target Value	DS[1])	TD[2])	Test Method
Phosphorus	%(w/w)	23.3 - 24.0	☑	☐	Photometry after oxidizing dissolution; (11/17) or wavelength dispersive X-ray fluorescence spectrometry; (11/23)
Water / Moisture	%(w/w)	max. 0.2	☑	☐	Thermogravimetry; (11/03)
Density	g/cm³	1.35	☐	☑	at 20° C
Bulk Density	kg/m³	400 - 600	☐	☑	
Decomposition Temperature	°C	> 300	☐	☑	(TGA 2% weight loss)
Average Particle Size (D50)	µm	25 - 50	☐	☑	

[1]) Delivery specification: The product is monitored on a regular basis to ensure that it adheres to the specified values. Test methods: Clariant method numbers 11/xx in brackets.
[2]) Technical data: The technical data are used solely to describe the product and are not subject to regular monitoring.

Applications

Exolit OP 1240 is a flame retardant for thermoplastics and thermosets. Due to its high phosphorus content the product is distinguished by a high efficiency.

Exolit OP 1240 was developed especially for the use in polyesters. It is suitable for both glass fibre reinforced and unreinforced grades. The flame retarded polyester compounds exhibit very good physical and electrical properties.

In PBT, a dosage of 20 % (by wt.) Exolit OP 1240 is usually sufficient to obtain the UL 94 V-0 classification for electrical components (at 1.6 as well as 0.8 mm thicknesses). In PET, less than 15 % are required to pass UL 94 V-0. Synergistic effects are known with other flame retardants like melamine polyphosphate, melamine cyanurate or zinc borates.

Subject to the polymer grade, processing conditions and glass fibre reinforcement the dosage of the flame retardant may vary.

Packaging and Handling

Delivery form
White powder

Packaging
Exolit OP 1240 is delivered in 20 kg paper bags with PE inliner or 500 kg big bags.

Storage
Minimum shelf life is 12 months from the date of shipping when stored according to the said conditions.

Processing

Safety

Further safety data and handling information are available from our current Material Safety Data Sheet. For disposal in accordance with the regulations the product should be treated as special waste and taken to a suitable incineration plant.

Contact Us;
Please contact us for safety and regulatory details or the Material Safety Data Sheet (MSDS).