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## Used in Polyester Fiber and PET

### BX FR OP950

#### Product Description

BX FR OP950 is a white granular powder based on an organic phosphinate. The product is not hygroscopic and slightly soluble both in water and in common organic solvents. It melts at 200 °C.

#### Features

- Melts under processing temperatures above 200 °C, and is miscible with molten polyesters
- High efficiency due to its high phosphorus content
- Suitable for injection moulding and fiber applications
- Minimal impact on physical properties of polyester compounds
- Suited for PET fibers with LOI > 30 %
- Not hygroscopic, slightly soluble in water and common organic solvents

#### Specification and Technical Data

Characteristics	Unit	Target Value	Test Method
Appearance		white dispersed powder	
Phosphorus	%(w/w)	19.5-20.5	
Water / Moisture	%(w/w)	≦ .0.35	Thermogravimetry
Density	g/cm <sup>3</sup>	approx. 1.3	at 20 °C
Bulk Density	kg/m <sup>3</sup>	approx. 500-700	acc. to DIN 53466
Decomposition Temperature	°C	> 350	DTA/TG

#### Applications

BX FR OP950 is a flame retardant for thermoplastics and synthetic fibers. Due to its high phosphorus content the product is distinguished by a high efficiency.

BX FR OP950 is developed especially for the use in polyesters. It is suitable for injection moulding and fibre applications. The flame retarded polyester compounds exhibit very good physical and electrical properties.

The recommended dosage of BX FR OP950 for PET fibers is 5-10%. With 5% BX FR OP950 a limit oxygen index (LOI) of 33% can be achieved. BX FR OP950 has to be incorporated in the PET compound before the spinning process. In PBT, a dosage of 10-15% (by wt.) NIP3006 together with 10-15% nitrogen synergists like melamine polyphosphate or melamine cyanurate is usually sufficient to obtain the UL 94 V-0 classification for electrical components (at 1.6 as well as 0.8mm thicknesses).

BX FR OP950 melts under processing temperatures above 200°C and is miscible with the molten polyesters. Before incorporating BX FR OP950, it is important to predry the polyester as usual.