

Dynamic Modifiers

“Free to Imagine”

Flame Retardant for Polyester

(PET, PBT and PTT Fibers and Films)

Product

This new environmentally sustainable, nontoxic and proprietary flame-retardant compounds and concentrates are designed for use in polyester fibers, tapes, monofilaments and films. Specifically, it can be formulated with a number of different polyester carrier resins including PET, PBT, even PTT. This flame retardant is halogen free. It does not contain antimony or any heavy metals. It has a higher level of phosphorous than that found in other flame retardants of a similar chemistry. The flame retardant in these compounds and concentrate is very heat stable and melt blendable making it an ideal flame retardant for fiber and film applications. It is not known to impart color or odor to the polyester in which it is used. Listed below are a few of the more common specifications for this flame-retardant composition. When used properly, it is designed to meet these specifications in applications where fibers and films made from it are commonly used:

Specification

NFPA 701
CPAI-84
UL-94
ASTM D-2863
MVSS 302
ASTM E648

Comment

All years and revisions for some constructions.
All Sections and Revisions for some constructions
V-1, V-2 for some thicknesses

Class 1 and Class 2 Radiant Panel

Recommended Use

The flame retardant in a concentrate form concentrate is designed to be used at 5% to as much as 20% by weight. The pellets of this concentrate should be thoroughly gravimetrically blended with the virgin polyester (PET, PBT or PTT) pellets before being extruded. This FR system, when formulated as a compound, is designed to be used at 100% by weight.

Physical Properties of Concentrate

Appearance: Cylindrical Pellets
Color: Clear to translucent Off White
Specific Gravity: 1.45

Processing Conditions

This flame-retardant concentrate can be extrusion processed at temperatures as high as 270 degrees Celsius or higher if necessary.

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Other/Special

The flame-retardant properties of the final polyester construction must be determined experimentally. The optimal level of the flame retardant to use for a given construction must be determined on a case by case basis where all fuel sources need to be accommodated in attempting to meet a given flame-retardant specification.

We highly recommend that you consult with your technical sales representative in your evaluations of this product and its specific end use applications.

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