

Dynamic Modifiers

“Free to Imagine”

Product Code: 200-10228 Flame Retardant for NatureWorks Ingeo Polylactic Acid (PLA)

Product

This new environmentally sustainable, nontoxic and proprietary flame-retardant concentrate is designed for use in Natureworks polylactic acid fibers, tapes, monofilaments, films and thick gauge extruded or molded parts. This flame retardant is halogen free, does not contain antimony or any heavy metals. The flame retardant system in this concentrate is not known to impart color or odor or have a significant impact on the mechanical properties when used at recommended levels to flame retard Ingeo PLA

Listed below are a few of the more common specifications this flame retardant concentrate, when used properly, is designed to meet in applications where fibers, films or molded parts made from it are commonly used:

<u>Specification</u>	<u>Comment</u>
NFPA 701	All years and revisions for some constructions.
CPAI-84	All Sections and Revisions for some constructions
UL-94	V-2 and V-0/V-1 Possible for some thicknesses
ASTM D-2863	
MVSS 302	
ASTM E648	Class 1 and Class 2 for some constructions.

Recommended Use

The flame-retardant concentrate is designed to be used from 3.0% to as much as 18% by weight. The pellets of this concentrate should be thoroughly gravimetrically blended with the virgin polylactic acid pellets before being extruded.

Physical Properties of Concentrate

Appearance:	Cylindrical Pellets
Color:	Clear to translucent Off White
Specific Gravity:	1.31

Processing Conditions

This flame-retardant concentrate can be extrusion processed at temperatures as high as 230 degrees Celsius. Higher processing temperatures will degrade the PLA host resin or carrier resin of the concentrate.

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Other/Special

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