

FREVA™ FA-205

Complex Flame Retardant

FREVA™ FA-205 is an advanced composite flame retardant based on hypophosphite. Its primary flame-retardant mechanism is in the condensed phase, where it aids in the rapid dehydration of polymers to form a protective char layer during combustion, preventing further burning. This flame retardant is particularly effective for thin film applications of polypropylene (PP) and polyethylene (PE). Additionally, FREVA™ FA-205 has a high melting point and excellent heat resistance, along with superior compatibility with PP and PE, enhancing processing efficiency.

Features

- Composite formulation free from halogens, heavy metals, and REACH Substances of Very High Concern (SVHC)
- High melting point and excellent heat resistance
- Non-hygroscopic and insoluble in water, acetone, methyl ethyl ketone (MEK), toluene, and other common organic solvents
- It offers good hydrolysis resistance
- It can be dispersed in solvents like acetone or methyl ethyl ketone (MEK)

Technical Data:

Item	Unit	Value
Appearance	--	White Powder
Particle Size	D50,um	15 max.
Specific Gravity	g/cm ³	0.35-0.45
Decomposition Temperature	°C	> 300
Phosphorus Content	%	12-14
Solubility in water	g/100ml	0.5 max.

➤ The above data are based on laboratory measurements and are intended as general guidelines. They do not necessarily guarantee identical results in other settings.

Recommended Dosage:

30wt% to achieve a UL94 VTM-0 flammability rating. The proportion can be adjusted

based on the properties of the plastic products and the required fire safety standards.

Flammability testing

Matrix: LDPE

	FA-205 15 wt.%	FA-205 30 wt.%
thickness	0.15 mm	0.15 mm
UL 94	VTM-2	VTM-0
Result	PASS	PASS

Package

- Available in 20-kg/pack

Storage

- Store in a dry, sealed environment, avoiding exposure to moisture or humid conditions.

Shelf Life

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

Safety :

- Additional safety data and handling instructions are available in our current Safety Data Sheet (SDS). When disposing of this product in accordance with regulations, it should be treated as special waste and sent to an appropriate incineration facility.

Values included in this data sheet are based on limited laboratory test specimens. These values are typical values and are not meant to be used for setting maximum or minimum values for specification purposes. Any determination of the suitability of the materials shown in this property data sheet for use by the end user is the sole responsibility of the user, who must assure themselves that the material as subsequently processed meets the need of his particular product or use. To the best of our knowledge the information in this publication is accurate and reliable, USI does not assume any liability whatsoever for the accuracy of this information.

USI Corporation
No.37, Ji-Hu Rd., Nei-Hu Dist., Taipei City 11492, Taiwan
(886-2)-8751-6888 www.usig.com