



# Gromax Enterprises Corp.

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## GY-FR-OP40

# Halogen-Free Synthetic Flame Retardant

### Introduction:

GYC GROUP is a leading manufacturer of flame retardant and specialty chemicals in Asia. We devote ourselves to supplying products and solutions to our customers worldwide to satisfy and expand the market needs.

GY-FR-OP40 is a highly-effective halogen-free synthetic flame retardant that can provide a long-term flame retardant effect to end product. It can be applied to various plastics, polymers, resins, elastomers, foam materials, adhesives, etc.

Thanks to the characteristics of low specific gravity and low corrosivity, GY-FR-OP40 offers excellent thermal decomposition temperature, which substantially minimizes the volume of smoke. It is also a prevailing flame retardant designated for use by a number of major plastics and resin producers worldwide.

### Properties

GRADE	GY-FR-OP40
Appearance	Refined powder
Color	White
Type	Halogen-free
Density	1.6
PH values	6±0.5
Water content	<0.5%
Decomposition	350°C
Solubility	Excellent
Halogen content	No Fluorine, Chlorine, Bromine
Using type	Adding type

### Benefits/Features

Imparts excellent and long-term flame retardant effect

- Halogen free (free of Fluorine, Chlorine, Bromine, or other halogen elements)
- Reduces the volume of smoke
- Provides excellent thermal decomposition temperature
- Low specific gravity and corrosion/ low density smoke
- Compatible with all kinds of plastic, polymer, resin, elastomer, foam, adhesive compounding

## Thermogravimetric Analysis

(10 MG @100C/MINUTE UNDER N2)

TEMPERATURE	325°C	350°C	370°C
WEIGHT LOSS	1%	5%	10%

## Applications

- Thermoplastic plastic: PP, PS, PE, HDPE, EVA, PA, PET, PC, polyolefin, polyester resin, nylon, POM, PBT, engineering plastic, etc.
- Thermosetting resin: epoxy resin, phenol resin, unsaturated resin, polyester resin, acrylic resin, etc.
- Rubber and elastomer industries (natural and synthetic rubber): TPE, SBS, SEBS, etc.
- PU synthetic leather, TPU artificial leather.
- Various of foam and flame retard foaming products.
- Polyamide: polyamide 66, 6, 11, 12.
- Polyurethane: TPU, PU resin.
- Electronic products made from TPU: switches, connectors, and covers.
- Coating and various resin: flame retard coatings, powder coatings, acrylic products, polyurethane resin, PMMA, latex resin, adhesive related products
- Non-solvent coatings.

## Adding rate

Suggested adding rate: 25%-35%

The adding rate is to be regarded as general guideline which should be adjusted according to the material, actual processing condition, effect expected, etc.

## Packing

25KG/bag

## Storage

Store in a cool, dry well-ventilated place. Avoid sunlight and seal tightly after use.