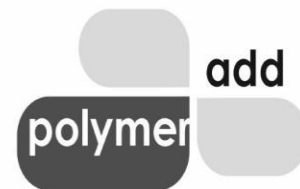


# Polymer Add (Thailand) Co.,Ltd.

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## TECHNICAL DATA SHEET

### PRODUCT NAME:

#### FR-SULBLEND FR4025

(Micronized Filler Blend for Halogen-Free Flame-Retardant Compounds)

### Description

FR-SULBLEND FR4025 is a dry powder blend of stearic-coated micronized Sodium Sulfate with ATH and EVA-based compatibilizers, designed for use in halogen-free flame-retardant (HFFR) systems such as wire & cable compounds and molded FR polyolefins. It enhances thermal stability, cost-efficiency, and processing behavior while supporting high flame-retardant filler loadings.

### Composition

Component	% w/w	CAS No.	Function
Stearic-Coated Micronized Sodium Sulfate	40.0%	7757-82-6	Functional filler, cost reducer, flow enhancer
Aluminium Trihydroxide (ATH, micronized)	35.0%	21645-51-2	Flame retardant, halogen-free
EVA Resin (Micronized, 18% VA)	20.0%	24937-78-8	Base resin / dispersion aid
MAH-Grafted EVA Resin (Micronized)	3.0%	26221-73-8	Compatibilizer / interfacial bonding
AO-1010 (Micronized)	0.3%	6683-19-8	Primary antioxidant
AO-168 (Micronized)	0.2%	31570-04-4	Secondary antioxidant (phosphite type)
Zinc Stearate (Micronized)	1.0%	557-05-1	Processing aid, lubricant, anti-static agent

### Product Highlights

- Enables **partial replacement of ATH**, reducing total system cost
- Supports up to **75% total filler loading** in FR EVA/PE systems
- Pre-blended for **uniform dispersion** and easy feeding into extruder or compounder
- Increases melt flow and reduces torque in high FR formulations
- Compatible with **HFFR**, cross-linked PE, EVA, and TPE systems

### Applications

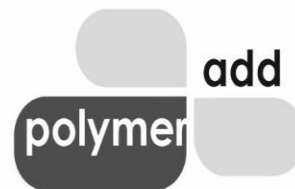
Industry	Application
Wire & Cable	HFFR jackets, sheaths, insulation
Electrical Components	Molded flame-retardant housings and enclosures
FR Compounds	EVA/PE base FR masterbatches
Injection Molding	Thermoplastics with high mineral + FR systems

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## TECHNICAL DATA SHEET

### Typical Physical Properties

Property	Value / Description
Physical Form	Fine dry powder
Bulk Density	~0.60–0.75 g/cm <sup>3</sup>
Particle Size (D100)	< 50 µm (micronized)
Compatibility	EVA, PE, PP, PA6, FR fillers
Odor	Odorless
Color	White / Off-white
Halogen Content	None (halogen-free formulation)

### Processing Information

Parameter	Guidance
Feeding Method	Direct feeding via powder hopper or pre-blending with resin
Extrusion Temp. Range	160–220 °C
Blend Ratio	10–30% in compound (as functional filler system)
Pre-Drying	Not required if properly stored
Compatibilization Note	Additional MAH-PE or EVA-g-MAH can be used if resin requires

### Packaging & Storage

- 20 or 25 kg moisture-protected paper or woven PE sacks
- Keep sealed, dry, and away from direct sunlight
- Recommended storage temperature: below 35 °C
- Shelf life: 6–9 months if unopened

*This preblend is offered as a dry additive system designed for technical use in polymer processing. The user is responsible for determining the appropriate dosage, processing parameters, and compatibility with their specific polymer and equipment. Polymer Add Thailand shall not be liable for any consequential or incidental damages arising from incorrect use or unverified end-application performance*

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