



Halogen-free Flame-retardant Polyethylene

Stage	R&D	Introduction consideration	Practical stage
Keyword	Reduction of Hazardous Substances		

Use	Wire insulation / Electrical component peripherals / Building materials
-----	---

Challenge

Drivers for Replacing Halogenated Flame Retardants

- Increasing regulatory restrictions in Europe
- Price Increases of Antimony Trioxide used as a Synergist for Flame Retardants
- Concerns over hazardous gas emissions during fires

Solution

●Flame retardancy

Material	Oxygen Index (OI2%)	Behavior
PE	~18	Burns in air
Halogen-free FR PE	~27	Does not burn in air

air, but our halogen-free flame-retardant PE quickly extinguishes by itself when ignited.

●Low-Hazard Gas Emissions

Unlike halogenated flame retardants and PVC, it does not emit hazardous gases during combustion, helping reduce secondary damage in indoor fire incidents

Benefit

Enables safer use in environments where halogenated flame-retardant materials could not be adopted due to hazardous gas concerns

Flooring

Wallpaper