



STOPFIRE MICRO-CAPSULE

STOPFIRE MICRO-CAPSULE represents the next generation in automatic fire suppression technology - a thin, solid sheet-type solution that provides instant protection for critical electrical equipment without requiring power, sensors, or maintenance.

"STOPFIRE" is a unique microencapsulation process to encapsulate perfluorohexanone into spherical solid particles of 50-300um (for different applications). Compared with liquid perfluorohexanone materials, microencapsulated perfluorohexanone can be made into unlimited sizes of sheets, easy to paint coatings, potting adhesives for insulation and fire extinguishing, etc., which can be used without installation by professionals, without the need to install complex sensing and electronic control systems, and is suitable for small confined spaces that are fixed or movable, and where power supply is not available.

Product Overview

STOPFIRE is an innovative fire suppression sheet that:

- Uses microencapsulated perfluorohexanone (a clean, non-conductive extinguishing agent)
- Activates automatically at 105°C ($\pm 5^{\circ}\text{C}$)
- Suppresses fires within 15 seconds
- Provides continuous protection for 10 minutes post-activation
- Is maintenance-free with more than 2 year service life

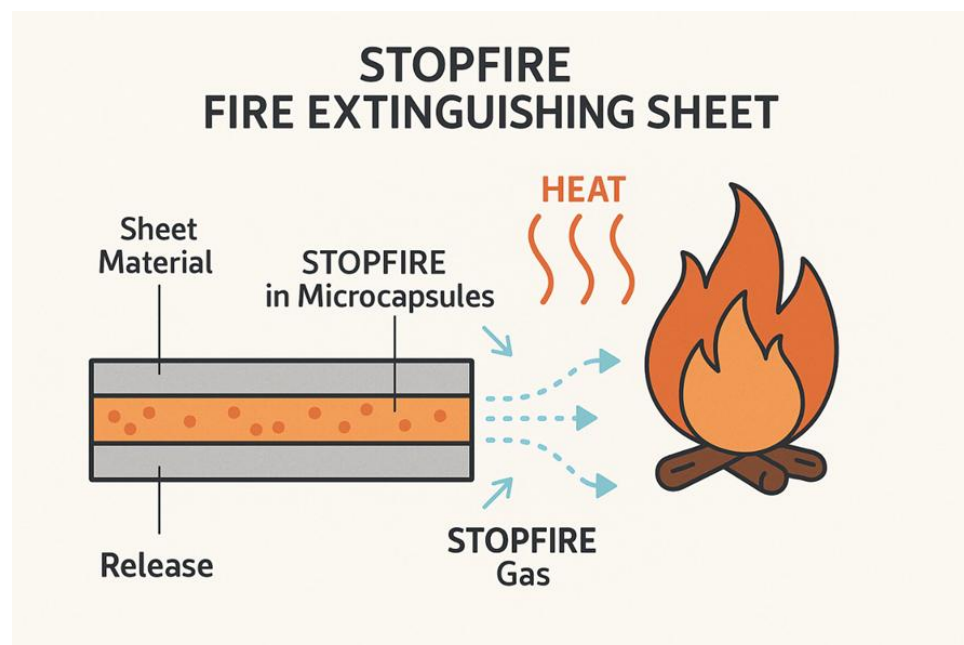
Key Differentiators

- ✓ **Self-contained operation** - No power or sensors required
- ✓ **Space-efficient** - Only 1-2 mm thick sheet form factor
- ✓ **Multi-activation capable** - Can suppress multiple ignition events
- ✓ **Environmentally responsible** - Very low GWP (Global Warming Potential), zero ODP (Ozone Depletion Potential)
- ✓ **Electronics-safe** - Leaves no residue, non-conductive

Technical Specifications

- **Active Agent:** Perfluorohexanone (40-55% content)
- **Activation Temperature:** $105^{\circ}\text{C} \pm 5^{\circ}\text{C}$
- **Extinguishing Concentration:** $1408\text{g}/\text{m}^3$
- **Discharge Time:** ≤ 30 seconds
- **Operating Range:** -40°C to $+65^{\circ}\text{C}$

How It Works



1. Sheet installed near potential ignition points
2. Temperature reaches 105°C threshold
3. Microcapsules rupture instantly
4. Perfluorohexanone gas released:
 - Cools flame zone
 - Displaces oxygen
 - Inhibits combustion chain reaction
5. Fire suppressed within 15 seconds

Target Applications

Ideal for:

- **Energy Storage:** Lithium battery modules (EVs, ESS)
- **Data Centers:** Server racks and critical IT infrastructure
- **Industrial:** Electrical cabinets in rail, telecom, petrochemical
- **Aerospace:** UAV battery bays and avionics
- **Building Systems:** Electrical rooms and control panels

Customer Benefits

For Facility Managers:

- Eliminates false alarms
- No annual inspections required
- Reduces insurance premiums

For Design Engineers:

- Saves space and weight
- Simplifies system integration
- Works in confined spaces

For Sustainability Officers:

- Environmentally friendly agent
- No harmful residues
- Compliant with green initiatives

Packaging

| | L mm | W mm | Thick mm |
|---------------|------|------|----------|
| Standard Size | 150 | 100 | 1 or 2 |
| | 100 | 100 | 1 or 2 |
| Custom Size | 20 | 25 | 1 or 2 |
| | 40 | 25 | 1 or 2 |
| | 100 | 40 | 1 or 2 |



Why Choose STOPFIRE?

- **Faster response** than conventional suppression systems
- **Lower total cost** than installed systems
- **Simpler compliance** with fire safety regulations
- **More reliable** with no moving parts to fail

Certifications:

