

# Flame Retardant

plastic technology



Flame retardants decrease the ignitability of materials and inhibit the combustion process, limiting the amount of heat released.



# Flame Retardant



Can be included in a wide range of applications in polyolefins (PE, PP and their copolymers) styrenics and highly engineered resins to provide improved protection against fire.

Characteristics	Masterbatch Series 92000
Composition	Proprietary formulation of active ingredients for flame retardancy in a suitable polymeric resin, or liquid form
Masterbatch Colour	White
Mechanism	<b>Vapour or Liquid Phase Inhibition.</b> During combustion, d <sub>2</sub> p®, flame retardant additives react with the polymer in the vapour or liquid phase, disrupting, at a molecular level, the production of free radicals and impeding the combustion process, char formation and water release
Applications	Textiles, automotive and aviation parts/products, paints and emulsions, electrical cables
Addition Rate	Between 5 and 25% (depending on certification requirements)
Odour	No odour
Stability	Extremely stable up to high temperatures. Stable when finely dispersed in a polymeric matrix, does not migrate to the surface of plastic materials in time (aging process). FR masterbatches have high heat stability, good FR efficiency, low cost and high UV stability
Storage	Indoor, away from excessive heat and direct UV exposure

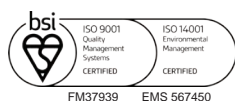
Cost efficient flame retardants with exceptional UV stability with great dispersion and minimal or no colour impact, making d<sub>2</sub>p® (fr) masterbatches the material of choice for a large variety of products.

The formulations are RoHS and EPA compliant, with a wide range of applications in polyolefin (PE, PP and their copolymers), styrenic homo and copolymers (GPPS, HIPS, ABS, SAN) as well as engineered thermoplastic resins, polyamides, PET/PBT, PC, silicone, PVC, etc.

**Symphony supply high quality Brominated, Phosphorous, Inorganics and Nitrogen based Flame Retardant masterbatches to enhance safety and human well being.**

## Benefits:

- ✓ High performance.
- ✓ Exceptional heat and UV stability.
- ✓ Excellent dispersion.
- ✓ Recyclable.
- ✓ Minimum or no colour impact.
- ✓ The active ingredients do not pose environmental health risks.
- ✓ Applications are suitable for following RATINGS (testing methods):
  1. UL 94-HB
  2. UL94 - V0
  3. NFPA 701, Test Method 2
  4. NFP 92-503 (for M1 classification)
  5. BS LPS 1027 (Construction Industry)



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