# Phoslite B407A

**A: Product description**

Proprietary synergistic flame retardant system free from halogen under development with no blooming characteristics based on Phosphorus for use in Polyolefins. The product can be compounded or moulded at high temperature (up to 280°C) without substantially affecting the rheological characteristics of the host polymer (MFR). Previously introduced as "EXP PP/45B"

**B: Physical properties (1)**

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|---|---|
| Appearance: | Fine powder |
| Odor: | odorless |
| Color | light yellow |
| Density (gr/cc) | ~ 1,8 gr/cc |
| Phosphorus (%) | ~ 31% |
| Bulk density (Kg/m3): | 450-500 kg/m3 |
| Particle size D50: | ~ 7 microns |

**C: Transport**

ADR/RID: not restricted for transport.

**D: Applications**

Phoslite B407A additive flame retardant is a very effective solution for flameproofing Polyolefins (PP homopolymer, co-polymer, HDPE and LLDPE).

Dosage for UL-94 V2 rating range from 4,5% to 10%, depending on polymer type and formulation (around 4,5 % on PP homo, 6% in PP copo, 8% on LLDPE and 8% on HDPE). Phoslite B407A is endued with a very high thermal stability and it is very easy to disperse in a polymer matrix. Phoslite B407A does not affect substantially mechanical properties of the host polymer at concentrations practically in use. Phoslite B407A can be used in mineral filled PP formulations, like Talc, Barium Sulfate and Calcium Carbonate compounds, showing UL 94 V2 behaviour with low extinguishing times.

Phoslite B407A allows to obtain GWFI at 960°C (both at 3 and 1 mm in PP homo and co-polymer) and high GWIT in the range 750°C – 900°C depending on final item thickness. Thanks to its very fine particle size, Phoslite B407A can be successfully used for flame-retarding PP films, moulded in blow or cast extruded.

The additive leaves full freedom of colorability to the compounder and the moulder. Phoslite B407A does not increase equipment's corrosion, even without any extra addition of anti-acids and show an outstanding thermal and process stability.

Phoslite B407A as such has very high UV stability. Phoslite B407A fully comply with the requirements of the RoHS and WEEE directives.

Additional application data and further developments can be discussed with Italmatch Chemicals Technical Development Center.

**E: Processing**

Phoslite B407A is endued with high thermal stability, therefore it is in position to overcome both extrusion and injection moulding normal processing conditions.

Phoslite B407A does not interact with the common processing additives like: stabilisers, crosslinking agents, processing aids, inorganic fillers, pigments, etc.

(1) Typical properties; not to be constructed as specifications

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