TA-1210

Organophosphorus modified flame retardants

INTRODUTION

Applications: TA-1210 is a novel phosphorus-containing flame retardant modified with functional groups such as hydroxyl and carboxyl groups. As a reactive and additive flame retardant, it exhibits excellent compatibility and transparency. It possesses high thermal and chemical stability, outperforming phosphate esters in flame retardancy. It is primarily composed of carbon, hydrogen, oxygen, and phosphorus, and its molecular structure does not contain halogen atoms such as fluorine (F), chlorine (Cl), bromine (Br), or iodine (I). It is smokeless, non-toxic, non-migrating, and provides long-lasting flame retardancy, meeting the requirements of many industries (such as electronics and electrical) for low-halogen/halogen-free products. It is suitable for applications requiring electrical insulation, low volatility, low pollution, and good compatibility with various polymers, forming a flame-retardant transparent film after addition.

TYPICAL VALUES

Appearance	flaky granules
Melting point(℃)	120
molecular weight(GPC)	240
color Gardner	1
acid value mg KOH/g	max. 2
Density g/cm^3	1.05

APPLICATION

Coating Applications: Suitable for various resin systems, used as a post-additive in coatings, adhesives, and inks to achieve flame retardant properties. Also applicable to UV-cured systems, maintaining excellent transparency and gloss. Used in industrial, construction, and automotive applications requiring insulation and flame retardancy. Also suitable for electronic and electrical bonding, sealing, and molding applications.

Recommended Dosage: 5-15% (UL94 V-0 flame retardant standard)

Polymerization molding: Used in injection molding, it has good compatibility, low melting temperature, and does not migrate. Suitable for transparent ABS, PC, and acrylic sheets, or PCB laminates, composite materials, and other materials requiring flame retardancy.

INTERMISCIBILITY

Monomer: Miscible with various monomers, intermediates, and derivatives.

Solvent: Miscible with esters, ketones, alcohols, and aromatic solvents.

Polymer: Highly compatible with polyesters, epoxy resins, polyurethanes, phosphate esters, and acrylates to meet formulation needs.

***packing*: 25kg** Each box

More detailed application references and MSDS are available upon request.……