Xytu® APP-83C
Phase II Ammonium Polyphosphate Flame Retardant

Product Description

Crystalline phase II ammonium polyphosphate (Xytu® APP-83C) is a halogen-free, environmentally friendly flame retardant with a phosphorus-nitrogen structure. It has a high degree of polymerization, good thermal stability, and low hygroscopicity. Unlike halogen-containing flame retardants, it forms an expanded char layer during combustion, providing flame retardancy through thermal insulation and exclusion of air, with low smoke, low toxicity, and no melt dripping. It is a highly effective, environmentally friendly inorganic flame-retardant material.

Technical Parameters

Appearance	White powder
P content, wt%	31.5
N content, wt%	14.5
Average degree of polymerization, n	>1000
pH (10% aqueous dispersion)	5.5-7.5
Average particle size (D50), μm	15-20
Particles <50 μm, wt%	≥99
Moisture, wt%	≤0.25
Water solubility (g/100 mL, 25 °C)	≤0.5
Decomposition temperature, °C	280

Applications

Xytu® APP-83C has a wide range of applications, including plastics (PP, PE, PVC, etc.), polyesters, rubber, and various high-grade intumescent fire-protective coatings.

Packaging and Storage

25 kg bags with a plastic inner liner and woven outer bag; 500/1000 kg bulk bags.

To prevent caking, keep the product in closed packaging and store in a cool, dry environment.