Technical Information No.047E

CATALYST GRADE OF ANTIMONY TRIOXIDE "PATOX-C"

Antimony trioxide used as a catalyst for polyester polymerization is more cost-effective than other catalysts and has the added benefit of producing polyester with minimal discoloration.
Our product, PATOX-C, is a special grade specifically developed for catalytic applications in polyester production. It is the result of over 40 years of dedicated research and development, and it has been widely adopted both domestically and internationally.

Specification

		Guaranteed Spec.
Antimony trioxide	Sb_2O_3	99.7 % min.
Arsenic	As	0.05 % max.
Lead	Pb	0.006 % max.
Iron	Fe	0.003 % max.
Sulfate	SO_4	0.01 % max.
Copper	Cu	0.001 % max.
Nickel	Ni	0.001 % max.
Clorine	Cl	0.001 % max.
Turbidity in HCl※		9 ppm max.
Average particle size		0.80 - 1.20 μm
Color tone L*		93.0 min.

※ Kaolin dispersion is used as the turbidity standard (based on kaolin concentration in ppm), and the turbidity of a solution of 1.5 g PATOX-C in 30 mL hydrochloric acid is measured accordingly.

Features

Compared to Ge-based catalysts, antimony trioxide is more economical, and compared to Ti-based catalysts, it is less prone to causing discoloration in the polyester product.
When used in polyester polymerization, antimony trioxide is typically dissolved in ethylene glycol. Our **PATOX-C** exhibits excellent solubility in ethylene glycol, leaving virtually no residue after dissolution. As a result, there is minimal risk of clogging in filters or meshes caused by undissolved catalyst during the polyester production process, which helps reduce maintenance requirements.
Furthermore, polyester chips and fibers produced using this grade show extremely low color unevenness. The resulting products have stable coloration and fibers are less likely to experience breakage during processing, enhancing both quality and productivity.

Packing

25 kgs net in bags (4-plies, Inner bag : 1-ply polyethylene Outer bag : 3-ply kraft paper.)
Our products shall be shrink wrapped (p.e. stretch-wrapping) for export purposes.

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