

Polymer Add (Thailand) Co.,Ltd.

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TECHNICAL DATA SHEET

AO1425 PLAIN

Product classification

Item	Description
Chemical name	Calcium bis[monoethyl(3,5-di-tert-butyl-4-hydroxybenzyl)phosphonate]
Product name	AO1425 Plain
CAS No.	65140-91-2
EC No.	265-512-0
Molecular formula	$C_{34}H_{56}CaO_8P_2$
Molecular weight	695 g/mol
Chemical class	Hindered phenolic phosphonate antioxidant

Physical and chemical properties

Property	Specification	Test method
Appearance	White powder	Visual inspection
Purity	≥97.0%	HPLC
Volatile matter	≤0.5%	Thermogravimetry
Calcium content	5.5–5.9%	Atomic absorption spectroscopy
Melting point	≥260 °C	Open capillary method
Particle size, D50	≤5 µm	Laser diffraction, wet method
Particle size, D90	≤10 µm	Laser diffraction, wet method
Tapped bulk density at 25 °C	0.25–0.35 g/cm ³	Graduated cylinder

Function and performance

AO1425 Plain is a primary antioxidant used to limit thermal and oxidative degradation during polymer processing and service. It is supplied **without a polyethylene wax carrier**.

Uses and applications

Material	Typical application
Polypropylene fibres	Oxidative stabilisation and resistance to gas fading
Polyester fibres	Thermal and oxidative stabilisation
Polyamides	Stabilisation in compatible formulations
Elastomers	Protection against heat and oxidation
Resins and adhesives	Stabilisation in compatible formulations

Principal benefits

- Fine powder for dispersion in polymer formulations.
- Low volatility and resistance to extraction.

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- Suitable for use with compatible secondary antioxidants.

Storage and handling

Store in tightly closed packaging in a cool, dry, well-ventilated area. Protect from moisture, excessive heat and direct sunlight. Minimise dust formation during handling.

Packaging

Pack size and packaging configuration are confirmed at the time of order.

Regulatory information

Suitability for regulated applications depends on the formulation, dosage and destination market.

Month of creation: September 2026

Month of review: September 2028

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