

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



TECHNICAL DATA SHEET

ANTIOXIDANT 245

Product classification

Item	Description
Chemical name	Ethylene bis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]
Product name	Antioxidant 245
CAS No.	36443-68-2
EC No.	253-039-2
Molecular formula	$C_{34}H_{50}O_8$
Molecular weight	586.76 g/mol
Chemical class	Hindered phenolic primary antioxidant

Physical and chemical properties

Property	Specification	Test method
Appearance	White crystalline powder	Visual inspection
Content	≥98.0%	Chromatographic assay
Melting point	76–80 °C	Melting point apparatus or DSC
Moisture	≤0.5%	Validated moisture determination
Light transmittance at 425 nm	≥95%	UV-visible spectrophotometry
Light transmittance at 500 nm	≥97%	UV-visible spectrophotometry

Function and performance

Antioxidant 245 is a hindered phenolic primary antioxidant used to limit thermal and oxidative degradation in polymers. It acts as a free-radical scavenger during processing and service. It may be combined with a suitable phosphite secondary antioxidant when additional processing stability is required.

Uses and applications

Polymer system	Typical use
Styrenics and elastomers	Stabilisation of ABS, impact-modified polystyrene, MBS, SB and SBR latex
Engineering polymers	Stabilisation of POM, polyurethanes, polyamides and polyesters
Other formulations	PVC and compatible resin or coating formulations, subject to suitability testing

Principal benefits

- Helps retain colour and properties during heat exposure.
- Offers low volatility and useful resistance to extraction in suitable formulations.

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- Can be used with a compatible secondary antioxidant.

Actual performance depends on the polymer, dosage and processing conditions.

Storage and handling

Store in tightly closed packaging in a cool, dry, well-ventilated place. Protect from excessive heat, direct sunlight and ignition sources. Minimise dust formation and use suitable ventilation and personal protective equipment.

Packaging

Confirm the available pack size and packaging configuration before ordering.

Regulatory information

Suitability for a regulated application, including food-contact plastics, must be assessed for the specific formulation, concentration and destination market using current supplier declarations.

Disclaimer

The specification limits above are taken from the supplied product COA. Batch test results have been omitted. The suggested test methods require confirmation by the manufacturer before this document is used as a controlled sales specification.

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