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Irganox® 1035

Antioxidant and heat stabilizer for wire and cable applications

Characterization

Irganox 1035 is a sulfur containing primary (phenolic) antioxidant and heat stabilizer used for the process stabilization of polyethylene wire and cable resins.

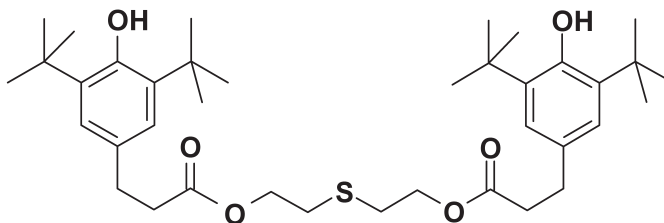
Chemical name

Thiodiethylene bis[3-(3,5-di-tert.-butyl-4-hydroxy-phenyl)propionate]

CAS number

41484-35-9

Chemical formula



Molecular weight

643 g/mol

Applications

Irganox 1035 is used in polyolefins, namely polyethylene, polypropylene, polybutene as well as in other polymers such as styrene homo- and copolymers.

It may also be used in linear polyesters, PVC, polyamides and polyurethanes, elastomers such as SBS, EPR, EPDM and other synthetic rubbers, adhesives, natural and synthetic tackifier resins and other organic substrates. Additionally it is recommended for the use in carbon black containing wire and cable resins.

Features/benefits

The world's most widely used antioxidant for PE and XLPE wire and cable resins, Irganox 1035, provides efficient processing stabilization and long-term thermal stability with excellent system compatibility and low color. The high quality of Irganox 1035 eliminates the concern over microcontaminants that can affect the insulation properties of the wire. Irganox 1035 offers excellent heat stability and is very unlikely to exude.

Product forms

Irganox 1035 white to off-white crystalline powder
Irganox 1035 FF (W & C) white to off-white crystalline granules

Guidelines for use

In XLPE or carbon black containing polymers, Irganox 1035 offers optimum performance when used in combination with the thiosynergist Irganox PS 800. Recommended use levels:

Irganox 1035	0.2 %–0.3 %
Irganox PS 800	0.2 %–0.3 %

Physical properties

Melting range	63–78 °C
Flashpoint	140 °C
Vapor pressure (20 °C)	1.3 E-9 Pa
Specific gravity (20 °C)	1.00 g/ml

Bulk density	
Powder	530–630 g/l
FF	480–570 g/l

Solubility (20 °C)

	g/100 g solution
Acetone	56
Benzene	56
Chloroform	35
Cyclohexane	56
Ethyl acetate	45
n-Hexane	5
Methanol	5
Water	<0.01

Health & Safety

Irganox 1035 exhibits a very low order of oral toxicity and does not present any abnormal problems in its handling or general use.

Detailed information on handling and any precautions to be observed in the use of the product(s) described in this leaflet can be found in our relevant health and safety information sheet.

Note

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September 2010