Technical Information Plastic Additives



Irganox[®] 259

Phenolic Primary Antioxidant for Processing and Long-Term Thermal Stabilization

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| ® = registered trademark of BASF SE | | |
| Characterization | Irganox® 259, a sterically hindered phenolic antioxidant, is an efficient, non- discoloring stabilizer for organic substrates such as plastics, synthetic fibers, and elastomers. | |
| Chemical name | Hexamethylene bis (3-(3,5-di-tert butyl-4-hydroxyphenyl) propionate) | |
| CAS number | 35074-77-2 | |
| Chemical formula | | |
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| Molecular weight | 630 g/mol | |
| Applications | Irganox® 259 is especially suited for the stabilization of polyacetals. Its use is also recommended in other polymers such as polyesters, polyolefins, polyols, polyurethanes, elastomers, adhesives, and other organic substrates. | |
| Features/benefits | Irganox® 259 provides excellent processing and long-term thermal stability as well as excellent initial resin color. It has good compatibility with most substrates, low volatility, and is resistant to extraction. | |
| Product forms | Irganox® 259 white to off-white powder | |
| Guidelines for use | Irganox® 259 is recommended for use in polyacetal homopolymers and copolymers at concentrations of $0.05 \% - 0.5 \%$ depending on the polymer type, method of incorporation, application, and degree of stability required. It is easily dispersed into the polymer by conventional extrusion compounding techniques. Suggested use concentrations for Irganox® 259 in polyesters, polyolefins, polyols, polyurethanes, elastomers, and adhesives range from $0.05 \% - 1.0 \%$ depending on the substrate and the stability required. The product can be used alone or in combination with other additives such as light stabilizers (e. g. ultraviolet absorbers, hindered amines), costabilizers. Performance data for Irganox® 259 alone and in | |

| Physical Properties | Melting range Flashpoint Vapor pressure (20 °C) Density (20 °C) Bulk density Powder | 103 – 108 °C 280 °C 1.3 E-8 Pa 1.08 g/ml 550 – 650 g/l | |
|---------------------|--|--|--|
| | Solubility (20° C) Acetone Benzene Chloroform Ethyl acetate n-Hexane Methanol Paraffin oil Water | g/100 g solution 36 39 47 25 1.5 1.7 < 0.1 < 0.01 | |
| | Volatility (TGA, air at 20 K/min) Temperature at 1 % weight loss 270°C Temperature at 10 % weight loss 335°C | | |
| Handling & Safety | 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 safety data sheet. | | |
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combination with other additives are available on request in a variety of substrates.

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