Technical Information

TI/EVK 1037 e March 2013

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Plastic Additives



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Irganox[®] B 501 W

Synergistic mixture of phenolic antioxidant with phosphite

Characterization

Irganox B 501 W is a synergistic mixture of Irganox 1425 WL and Irgafos[®] 168 (ratio 1:1). It is highly effective in polypropylene fibers against thermo-oxidative degradation.

Chemical name

1:1:2-Combination of calcium-bis (((3,5-bis(tert-butyl)-4-hydroxyphenyl) methyl)-ethylphosphonate); polyethylene-wax and tris(2,4-di-tert-butylphenyl) phosphite.

CAS number

Preparation

Chemical formula

$$\begin{array}{c|c} & O & \\ & O & \\ & II \\ & IO \\ & IOI_{-} \end{array}$$
 Ca^{2*}

P

Molecular weight

Irganox 1425 WL 695 g/mol Irgafos 168 647 g/mol

Applications

Irganox B 501 W is particularly well suited for polypropylene fibers.

Features & benefits

Irganox B 501 W provides good processing stability during polypropylene fiber production. It shows good gas fading resistance and offers superior long-term thermal performance. Irganox B 501 W gives brilliance to PP fibers, which is of particular interest in some BCF/CF applications. It is not influenced by alkaline additives.

Product forms

Irganox B 501 W white powder
Irganox B 501 W FF white, free-flowing granules

Guidelines for use

Recommended use levels are 0.15-0.25%.

Physical properties

Melting range $50-300 \,^{\circ}\text{C}$ Flashpoint $>150 \,^{\circ}\text{C}$

Bulk density (20 °C)

Powder 420-460 g/l FF 400-500 g/l

Solubility (20 °C)

Water < 0.01 g/100 g solution

Health & safety

Irganox B 501 W 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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