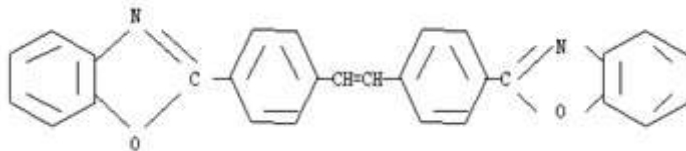


TECHNICAL DATASHEET

Product description

Optical brightener OB-1
Bright yellowish green crystals powder



Technical properties

Because of its heat stability, low volatility and high performance, it is one of the most commonly used optical brighteners in plastic industries.

Application

A good whitening agent for polyester-cotton blend fabrics. Also recommended for various kinds of plastics such as PP, ABS, PS, HIPS, PA, PC, EVA, rigid PVC and their products under high temperature.

Physical data

Molecular formula	C ₂₈ H ₁₈ N ₂ O ₂
Molecular weight	404.4
Cas no.	1533-45-5
Finess	500 mesh
Purity	98.5%
Melting point	353-359 °C
Solubility	Insoluble in water, soluble in high boiling point organic solvents e.g. phenyl chloride
Volatile content	0.3 % max

Formulation tips:

- In order to have the best performance it should be mixed thoroughly. Since OB-1 content is very low (25-500 ppm) applying as a concentrated masterbatch would be beneficial. The usual concentrated masterbatches contain 1-10% OB-1.
- For transparent polymers apply 2.5-5 g of OB-1 in 100 Kg of polymer.
- For common polymers apply 10-50 g of OB-1 in 100 Kg of polymer.

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- Since optical brighteners act by absorbing UV light and re-emitting in the blue region, the presence of any UV-absorbers in the formulation might increase the required amount of this additive.
- For plastics that have a whitening agent such as TiO₂ in the formulation, the level of OB-1 will be higher. Using OB-1 with TiO₂ would create a brilliant white.
- In the normal polyester fiber application, the needed dosage of OB-1 is 200-300 ppm whereas in producing fiber from the recycled materials like PET bottles 300-450 ppm would meet the appearance requirements.
- The appearance of off-class or low quality nylon polymer can be upgraded by adding OB-1.
- For polymers used in food industry OB-1 can be used as an indirect-contact food additive and the level should not exceed 25 ppm and the temperature should be lower than 135°C.