

OPTICAL BRIGHTENER OB-1(CI 393)

1. Item Name: 2,2-(1,2-Ethenediyl-di-4, 1-phenylene) bisbenzoxazole

2. Specifications:

Appearance:	Pale yellowish green crystal powder/granule
Molecular Formula:	$C_{28}H_{18}N_2O_2$
Molecular weight:	414.4
CAS No.:	1533-45-5
Melting Point:	353°C-359°C
Assay:	98%min
Ash:	0.3%max.
Volatile Content:	0.3%max.
Particle Size:	500meshes

3. Properties

Optical brightener OB-1 is the best whitening agent for polymer fiber, and its also widely used in plastics, such as PP, ABS, PS, HIPS, PA, PC, EVA, Rigid PVC, etc

OB-1 produces very brilliant white effect with neutral to blue-violet shade. Because of its exceptional whitening properties, heat stability and low volatility, it is now popularly used in the engineering plastic market as well.

4. Effect of Optical Brighteners on the Whiteness of Polymers

Optical brighteners function by absorbing ultraviolet radiation and remitting blue light. The emitted blue light will reduce the yellow color of a polymer. In the presence of a whitening agent, such as TiO_2 , the use of OB-1 will produce a brilliant white or “white than white” appearance.

Two primary factors affect the whiteness/yellowness of a formulation. They are the color of the base polymer and the level of brightener added. If no whitening agent, such as TiO_2 , is used, the level of OB-1 required will likely be lower than when a whitening agent is preset. This level might be as little as 25-50 ppm. In determining the optimum concentration of brightener, the effect of any other UV-absorbing materials in the plastic should be considered. It is important that users perform sufficient evaluations to determine the optimum level of OB-1 for their specific end uses.

5. Methods of Addition

Please mix thoroughly to obtain best effect. OB-1 concentrated masterbatch can be even better mixed.

Dosage-----in each 100kg polymers

Transparent: 0.0025--0.005% (2.5g-5g)

