

Formulation Additives

Technical Data Sheet



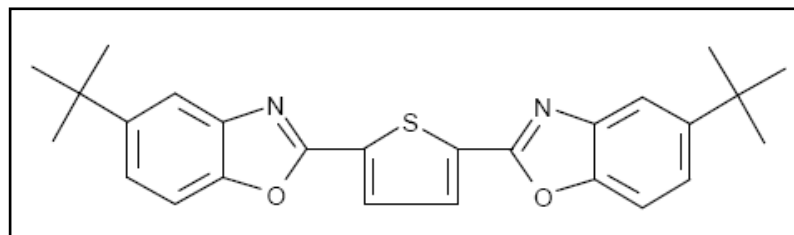
Tinopal® OB CO

Tinopal® OB CO is a fluorescent optical brightener that shows:

- brilliant bluish whitening effects
- excellent heat resistance
- high chemical stability
- good compatibility in a wide range of resins

Chemical Nature

Fluorescent Whitening Agent - 2, 5-thiophenediylbis (5-tert-butyl-1, 3-benzoxazole)

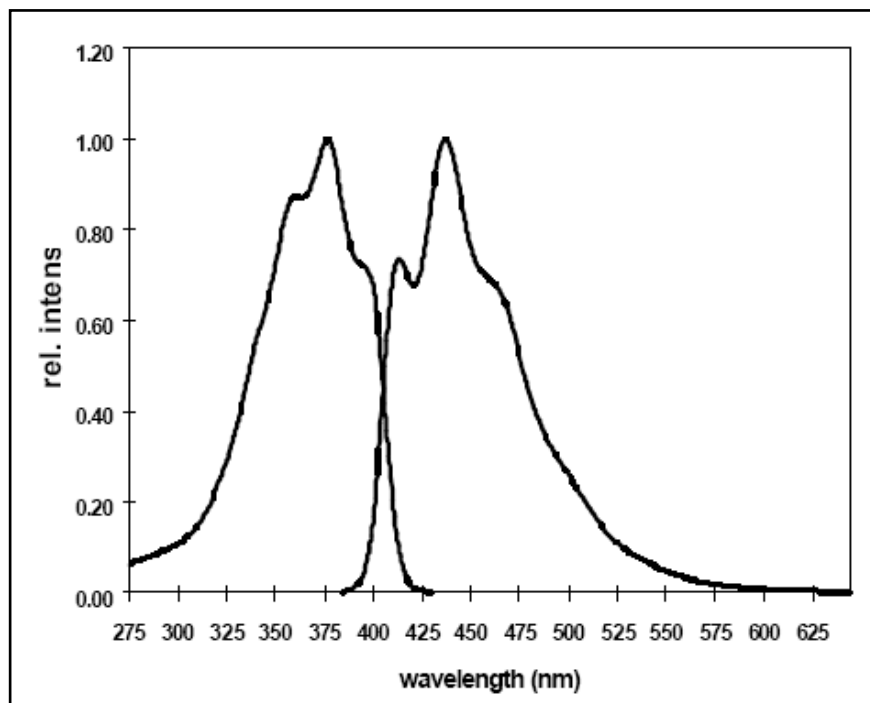


Properties

Typical Properties

Molecular weight	g/mol	430.6
Appearance		yellow powder
Melting Point	°C	~ 196 – 203
Specific density at 20 °C	g/cm ³	1.26
Solubility	(g/100 g solution) at 20°C:	
Acetone		0.5
Chloroform		14
Dimethylformamide		0.8
Dioxane		2
n-Hexane		0.2
Methanol		0.1
Methylethylketone		1.3
Tricresylphosphate		0.8
Xylene		5
water		0.01

Absorption and Emission Spectra
(in DMF cell thickness: 1 cm)



Applications

Features

Tinopal® OB CO is recommended for applications such as:

- white and pastel tone paints where it intensifies the degree of whiteness
- clear coats and overprint varnishes where it is used to mask the yellowish self color and also to intensify the brilliance of white and colored base coats
- primer and/or topcoats where it is used as marker to identify voids, holidays and uneven coverage
- black and blue printing inks to increase their deep tone
- printing inks for quick identification, security and safeguard against forgeries (i.e. banknote)
- packaging inks as promotional tool or as tracer for packaging lines
- manufacture of fluorescent pigments/dyestuffs to reinforce the brightness of certain shades, particularly blue tones
- thermal dye diffusion paper to enhance paper whiteness
- film base for photographic paper

If Tinopal® OB CO must be used in combination with a UV absorber; the absorption spectrum of the latter must leave an open window in the near UVA for the optical brightener. Due to the intrinsic light fastness properties of optical brighteners, Tinopal® OB CO is recommended for indoor use only.

Recommended concentrations

Clear coats and overprint varnishes	0.02 - 0.1%	Tinopal® OB CO
Marker in primers 2	0 - 4.0%	Tinopal® OB CO

Concentrations are based on weight % binder solids and depend on degree of desired brightening effect

White coatings	0.5 - 5 %	Tinopal® OB CO
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Concentrations are based on % by weight of pigment and depend on the degree of desired whiteness

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet for Tinopal® OB CO.

Important

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