

Ciba[®] TINUVIN[®] 5151 Light Stabiliser

General

TINUVIN 5151 is a liquid light stabilizer blend developed specifically for coatings. Its high thermal stability and permanence makes it suitable for coatings exposed to high bake temperatures and extreme environmental conditions. It has been designed to fulfil the high cost/performance and durability requirements of trade sales and industrial applications. Its broad UV absorption allows efficient protection of light sensitive substrates such as wood and plastics.

UV Transmittance Spectrum

(40mg/liter in toluene 1 cm cell thickness)



Physical Properties

(typical values)

Appearance: viscous amber liquid

<u>Dynamic Viscosity at 25°C</u>: 7000 mPas (Brookfield, 20 rpm)

Density at 20°C : 1.10 g/cm³

<u>Miscibility at 20° C</u>: TINUVIN 5151 is miscible to more than 50% with most commonly used paint solvents. Water solubility is less than 0.01%.

Applications

TINUVIN 5151 is a versatile light stabilizer which can be used in a wide variety of clear and pigmented coating systems, based on water-borne or solvent-borne paint technology. Due to the hydrophilic nature of the product it is especially suited for use in water-borne coatings for applications such as:

- Wood Coatings
- House and Trim Paints
- 2 component PUR Coatings
- Air drying alkyd emulsions

Other recommended application segments include:

- Industrial Baking Finishes (e.g. PES/melamine Coil Coatings)
- UV radiation curable acrylic and unsaturated polyester (UPES) resin based systems

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The dispersion of TINUVIN 5151 in water-borne coatings may be facilitated by dilution with a water miscible cosolvent such as butyldiglycol or Texanol. (Texanol is a registered trademark of Eastman Chemicals)

The amount of TINUVIN 5151 required for optimal performance should be determined in trials covering a concentration range.

Recommended concentration of TINUVIN 5151: (concentrations are based on weight % binder solids)		
Wood Coatings	2 - 5 %	
House and Trim Paints	2 - 5 %	
1 and 2 component PUR Coatings	1 - 3 %	
Non-PUR Finishes	1 - 3 %	
Industrial Stoving Finishes	1 - 3 %	
UV radiation curable Acrylic and UPES based resin systems	2 - 5 %	

Safety and Handling TINUVIN 5151 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

Trademark TINUVIN is a registered trademark.

Important Notice Purchase of TINUVIN 5151 alone does not permit use in combination with UV absorbers and/or hindered amine light stabilisers (HALS) in stoving lacquers covered by US Patent Nos. 4'314'933, 4'426'471 and corresponding patents and patent applications in other countries.

Moreover, purchase of TINUVIN 5151 alone does not permit its use in combination with 2hydroxy-phenyltriazine UV absorbers in coatings as covered by US patent No. 5'106'891 and corresponding patents and patent applications in other countries.

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