



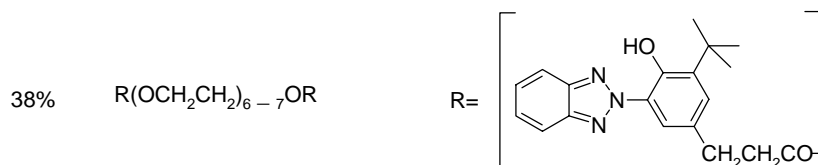
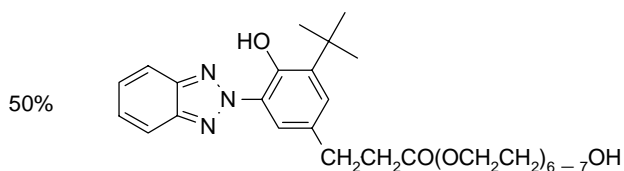
Ciba[®] TINUVIN[®] 1130

Light Stabiliser

General

TINUVIN 1130 is a liquid UV absorber of the hydroxyphenyl-benzotriazole class specifically developed for coatings. The product is miscible with all common solvents but also easily incorporated into water borne systems. The high temperature and extraction resistance of Tinuvin 1130 makes it especially suitable for industrial and automotive coatings. Because of its broad UV absorption, TINUVIN 1130 also provides efficient protection to light sensitive substrates such as wood and plastics.

Chemical Composition



α -[3-[3-(2H-Benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -hydroxypoly(oxo-1,2-ethanediyl);
CAS No. 104810-48-2

α -[3-[3-(2H-Benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]poly(oxy-1,2-ethanediyl);
CAS No. 104810-47-1

Polyethyleneglycol 300; CAS No. 25322-68-3

Physical Properties (typical values)

Appearance: yellow to light amber viscous liquid

Dynamic Viscosity at 20°C: 7400 mPa.s

Density at 20°C: 1.17 g/cm³

Miscibility (g/100 g solution) at 20°C:

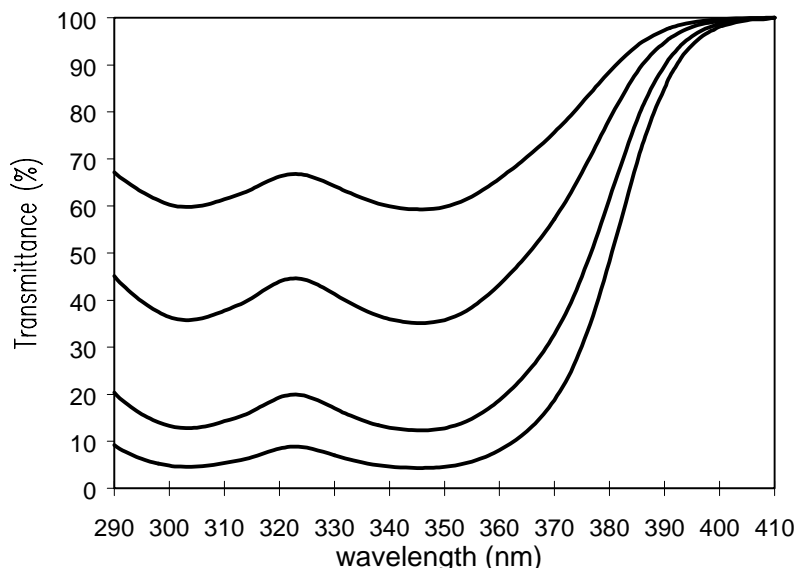
- miscible (> 50) with polar and non-polar organic solvents
- not miscible with water

Ciba® TINUVIN® 1130 Light Stabiliser



Transmittance Spectrum

in toluene
cell thickness: 1 cm



Explanation:

Top line: 0.001% TINUVIN 1130, corresponds to 0.25% in a 40 μ film
Second line: 0.002% TINUVIN 1130, corresponds to 0.50% in a 40 μ film
Third line: 0.004% TINUVIN 1130, corresponds to 1.0% in a 40 μ film
Bottom line: 0.006% TINUVIN 1130, corresponds to 1.5% in a 40 μ film

Application

TINUVIN 1130 is recommended for both solvent and water based coatings such as:

- automotive coatings
- industrial coatings
- trade sales coatings

TINUVIN 1130 may be used in combination with a light stabilizer of the sterically hindered amine class (HALS) such as TINUVIN® 144, TINUVIN® 292 or TINUVIN® 123. These synergistic combinations impart superior coating protection against gloss reduction, cracking, blistering, delamination and color change. The light stabilizers may be added in two coat automotive finishes to the clear coat and to the base coat. However, according to our experience, the optimum protection is achieved by adding the light stabilizer to the topcoat.

The dispersion of TINUVIN 1130 in water borne systems may be eased by dilution with a water miscible solvent such as butylcarbitol.

The amount of TINUVIN 1130 required for optimum performance should be determined in trials covering a concentration range.

Recommended concentrations :

(concentrations are based on weight percent binder solids)

1.0 - 3.0 %	TINUVIN 1130
+ 0.5 - 2.0 %	TINUVIN 123, TINUVIN 144 or TINUVIN 292

Ciba® TINUVIN® 1130 Light Stabiliser



Safety and Handling

TINUVIN 1130 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 1130 alone does not permit its use in combination with Hindered Amine Light Stabilizers (HALS) in stoving lacquers covered by US Patent Nos. 4'314'933, 4'426'471 and EP patent No. 52073 and corresponding patents and patent applications in other countries.

Moreover, purchase of TINUVIN 1130 alone does not permit its use in combination with 2-hydroxy-phenyltriazine and benzotriazole 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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