

Industrial Coatings

Technical Data Sheet

Tinuvin® 5350



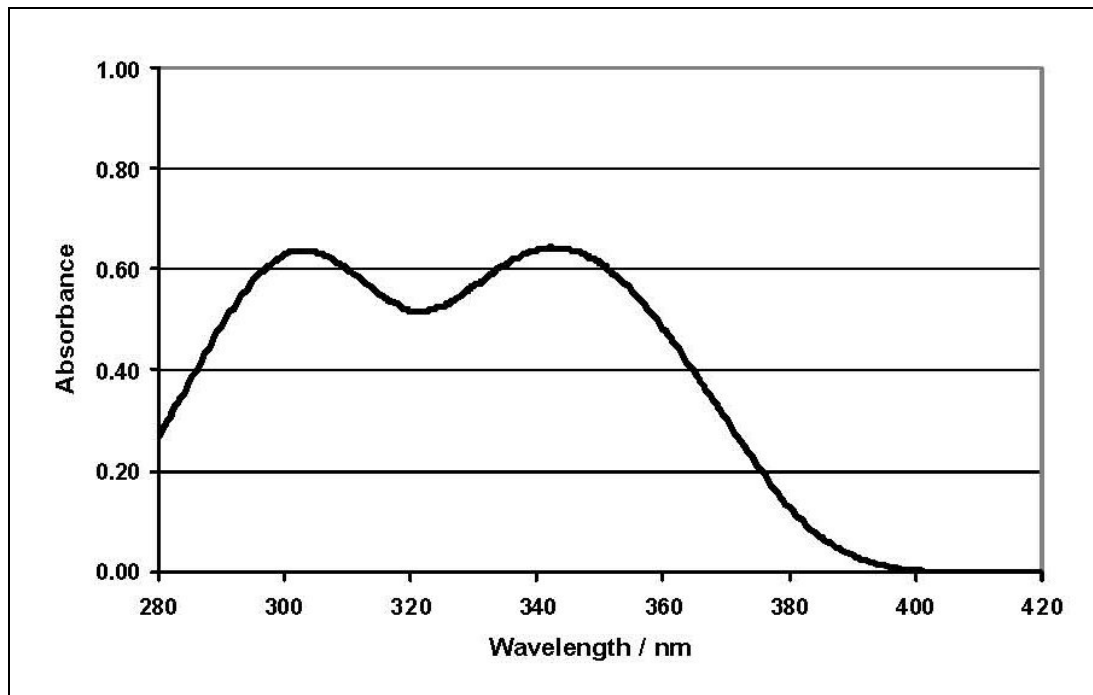
Product Description	Tinuvin® 5350 is a solvent-free, liquid blend of a 2-(2-hydroxyphenyl)-benzotriazole UV absorber (UVA) and a basic hindered amine light stabilizer (HALS) designed to fulfill the high cost/performance and durability requirements of automotive coatings.
Key Features & Benefits	<ul style="list-style-type: none">- Synergistic blend of UVA/HALS for solvent based systems- Provides protection of coatings against cracking, loss of gloss, and color change- Recommended for non-acid catalyzed systems
Chemical Composition	Blend of 2-(2-hydroxyphenyl)-benzotriazole UVA and a basic HALS

Properties

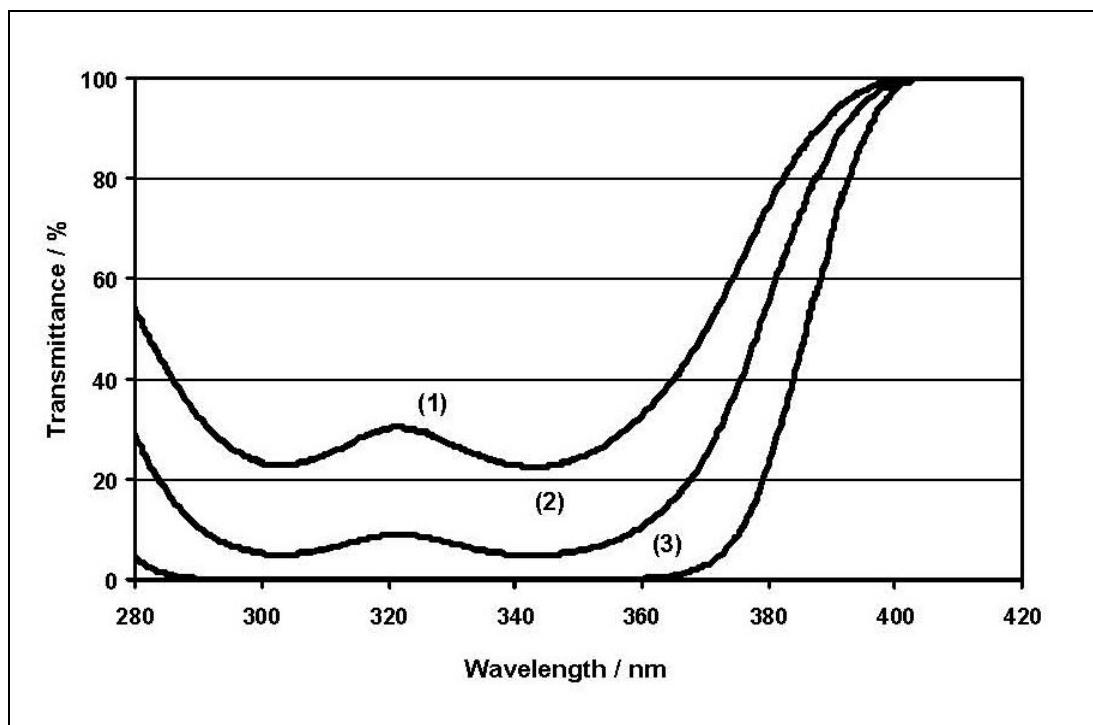
Typical Properties	Appearance	clear, slightly yellow to yellow/green liquid
	Clarity of solution	clear solution
	Content of HALS	48 – 52%
	Content of Benzotriazol	48 – 52%
	CIE-Lab C*	≤ 25
Typical Characteristics	Appearance	viscous amber liquid
	Dynamic Viscosity at 25 °C	10,000 cps
	Density at 20 °C	0.98 g/ml
	Miscibility	Tinuvin® 5350 is miscible to more than 50% with most commonly used paint solvents. Water solubility is less than 0.01%.

These typical values should not be interpreted as specifications.

UV Absorbance Spectrum
(40 mg/l in chloroform, cell thickness = 1 cm)



UV Transmission Spectrum
(The theoretical concentration of the UVA in an applied 40 µm clear coat was calculated as a function of the concentration in chloroform ($d = 1.48 \text{ g/cm}^3$) with the help of the Lambert-Beer law)



Line one: 0.003 % Tinuvin® 5350 corresponds to 0.68% active UVA in a 40 µm film
Line two: 0.005 % Tinuvin® 5350 corresponds to 1.35% active UVA in a 40 µm film
Line three: 0.014 % Tinuvin® 5350 corresponds to 3.38% active UVA in a 40 µm film

Applications

Tinuvin® 5350 is a solvent-free, liquid blend of a UV absorber (UVA) and a basic hindered amine light stabilizer (HALS) designed to fulfill the high cost/performance and durability requirements of automotive coatings.

Tinuvin® 5350 is recommended for

- Automotive coatings
- General industrial applications, i.e. coil coatings, wood coatings

The liquid form of Tinuvin® 5350 provides easy incorporation into waterborne systems.

These combinations improve the durability of clear coats by inhibiting or retarding the occurrence of failures such as gloss reduction, cracking, color change, blistering and delamination.

Recommended concentrations

The amount of Tinuvin® 5350 required for optimum performance should be determined in trials covering a concentration range.

The dry film thickness (DFT) directly affects the amount of UVA needed. The following recommended concentrations are to achieve proper stabilization for given DFT (light stabilizers % is indicated on total formulation):

10 µm – 20 µm:	8.0 % – 4.0 %
20 µm – 40 µm:	4.0 % – 2.0 %
40 µm – 80 µm:	2.0 % – 1.0 %

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.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet Tinuvin® 5350.

Storage

Properly stored and protected, an unopened container of Tinuvin® 5350 should have a shelf life of at least 36 months.

Important

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