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Tinuvin® 928

Product Description

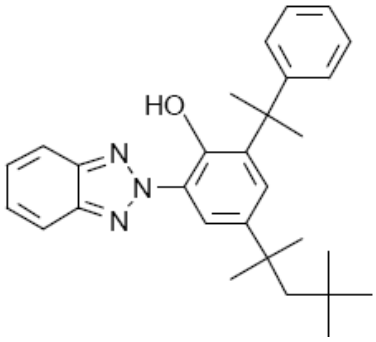
Tinuvin 928 is UV absorber of the hydroxyphenyl benzotriazole class developed specially for high performance coating applications.

Key Features & Benefits

- Excellent photopermanence
- Excellent spectral coverage
- Designed for use in solvent based & powder coatings

Chemical Structure

2-(2H-Benzotriazol-2-yl)-6-(1-methyl-1-phenylethyl)-4-(1, 1, 3, 3-tetramethylbutyl) phenol



Properties

Typical Properties

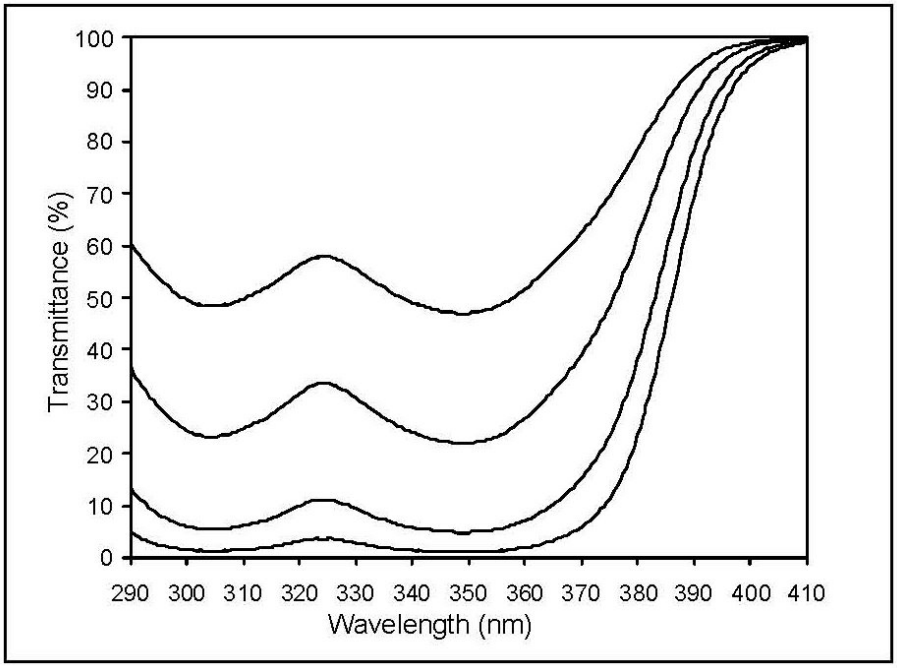
CAS No:		73936-91-1
Appearance		light yellow crystalline powder
Molecular weight		441.6
Melting Data	°C	109 - 113

Soluibility at 20 °C (g/100 g solution)

butyldiglycol	35
butanol	17
butyl acetate	> 30
butylglycol acetate	9.5
ethylglycol acetate	10
methoxypropyl acetate	9.4
methyoxypropanol	2.9
Solvesso 100 [1]	> 30
Solvesso 150 [1]	> 30
n-hexane	> 50
water	< 0.01

[1] Registered trademark of Esso
These typical values should not be interpreted as specifications.

Transmittance Spectrum
in toluene, cell thickness: 1 cm



Explanation:

Top Line:	0.001% Tinuvin 928, corresponds to 0.25% in a 40 µm film
Second Line:	0.002% Tinuvin 928, corresponds to 0.50% in a 40 µm film
Third Line:	0.004% Tinuvin 928, corresponds to 1.0% in a 40 µm film
Bottom Line:	0.006% Tinuvin 928, corresponds to 1.5% in a 40 µm film

Applications

Tinuvin 928 is a UV absorber of the hydroxyphenyl benzotriazole class developed specially for high performance coating applications. Its characteristic broadband absorption provides efficient protection to coatings and light sensitive substrates. Its excellent solubility and high thermal and environmental permanence makes it particularly suitable for coatings exposed to high temperature curing processes, such as powder and coil coatings, or high environmental stress.

Tinuvin 928 is recommended for applications such as:
- automotive coatings
- powder and coil coatings
- hot melt adhesives
- exterior construction coatings (roofing, etc.)
- construction adhesives and sealants

Tinuvin 928 may be used in combination with a light stabilizer of the sterically hindered amine class (HALS) such as recommended below. Combinations provide best protection against gloss reduction, cracking, blistering, delamination, and color change. Light stabilizers may be added in clear coats, base coats or solid shades. However, according to our experience the optimum protection is achieved by adding the light stabilizers to the topcoat.

The amount of Tinuvin 928 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommend Concentrations

Powder coatings	1.0 – 3.0 %	Tinuvin 928
	+	
	0.5 – 2.0 %	Tinuvin 144 or Tinuvin 111 FD
Liquid coatings	1 – 3 %	Tinuvin 928
	+	
	0.5 – 2 %	Tinuvin 292, Tinuvin 249 or Tinuvin 123

(concentrations are based on weight percent binder solids)

Safety

General The usual safety precautions when handling chemicals must be observed. These include the measure 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 for Tinuvin 928.

Storage

Please refer to the “Handling and Storage of Polymer Dispersions” brochure.

Important

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