

# Tinuvin® 900

**Product Description** 

Tinuvin 900 is a UV absorber of the hydroxyphenyl-benzotriazole class developed specifically for coating systems exposed to high temperatures and/or extreme environmental stresses.

Key Features & Benefits

- Solid hydroxyphenyl-benzotriazole with excellent spectral coverage in UV region
- Excellent thermal and photo-permanence
- Excellent for improving exterior durability of powder & solvent borne coatings

**Chemical Structure** 

Tinuvin 900 is: 2-(2H-benzotriazol-2-yl)-4, 6-bis (1-methyl-1-phenylethyl)phenol

## **Properties**

**Typical Properties** 

CAS No: 70321-86-7 Appearance slightly yellow powder Molecular weight 447.6 °C Melting range 137 - 141Solubility at 20°C (g/100 g solution): 0.2 butylcarbitol butanol 0.3 4.5 butyl acetate ethyglycol 1 1-methoxypropylacetate-2 2 methylethylketone 5.5 Solvesso 100 <sup>1</sup> 5 Solvesso 150 <sup>1</sup> 5 xylene 10

< 0.01

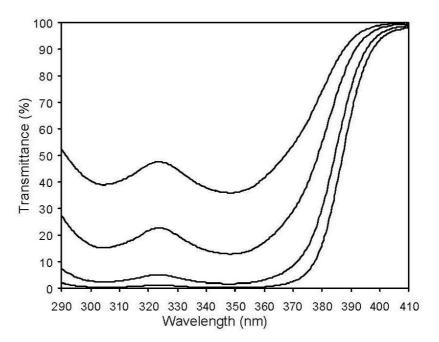
water

These typical values should not be interpreted as specifications.

<sup>&</sup>lt;sup>1</sup> Registered trademark of Esso

### Transmittance Spectrum

in toluene, cell thickness = 1 cm



Top Line: 0.001% Tinuvin 900, corresponds to 0.3% in a 40  $\mu$ m film Second Line: 0.002% Tinuvin 900, corresponds to 0.5% in a 40  $\mu$ m film 0.004% Tinuvin 900, corresponds to 1.0% in a 40  $\mu$ m film 0.006% Tinuvin 900, corresponds to 1.5% in a 40  $\mu$ m film

## **Applications**

Tinuvin 900 is recommended for applications such as:

- · Solvent borne automotive coatings
- · Coil coatings
- Powder coatings
- · Hot melt adhesives

Tinuvin 900 may be used in combination with a light stabilizer of the sterically hindered amine or aminoether class (HALS) such as recommended below. These combinations give coatings superior protection against gloss reduction, cracking, blistering, delamination, and color change. The light stabilizers may be added in two-coat automotive finishes to the base and clear coat. However, according to our experience the optimum protection is achieved by adding the light stabilizer to the topcoat.

The amount of Tinuvin 900 required for optimum performance should be determined in laboratory trials covering a concentration range.

#### **Recommend Concentrations**

1.0 - 3.0% Tinuvin 900

+

0.5 – 2.0% Tinuvin 144, Tinuvin 292, 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 900.

## **Storage**

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

### **Important**

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