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Ultraviolet light absorber for plastics, coatings and adhesives

UV ABSORBER

1. General

Chiguard[®] 328 belongs to the family of substituted benzotriazoles, which protect against ultraviolet radiation. Chiguard[®] 328 has high solubility that makes it particularly useful for stabilizing coatings, polyolefins, styrenics and urethanes. Compared to other Chitec's UV absorbers, Chiguard[®] 328 is more solvent soluble, has better resin compatibility and washfastness, is less volatile, and provides a degree of stabilization that is generally equal to or better than other members of the family.

2. Properties

Structure :

$$\begin{array}{c|c} & \text{HO} & \text{C(CH}_3)_2\text{CH}_2\text{CH}_3 \\ \hline \\ & N & \end{array}$$

C(CH₃)₂CH₂CH₃

Chemical name : 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol

Physical Data

Appearance : Off-white crystalline powder

Odor : Faint
Boiling point : > 300 °C
Melting point : 80 °C

Specific gravity : 1.17 @20 °C

4. Solubility

(g in 100 ml solvent)

Ethyl acetate : 20
Ethanol : 0.6
Methyl ethyl ketone : 24
Mineral spirits : 14
Styrene : 34
Water : Nil

5. Specification

Appearance : Pale yellow crystalline powder

Assay : 99% min.

Melting point : 79 - 84 °C

Volatiles : 0.5% max.

Transmittance : 97% min. @460 nm

98% min. @500 nm



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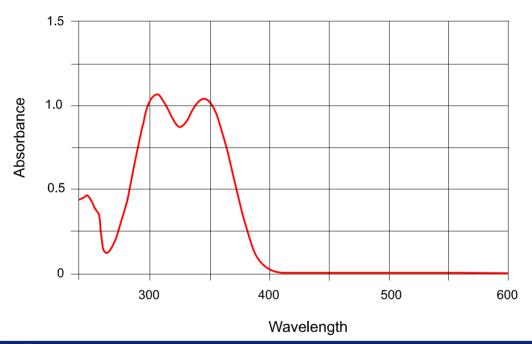
6. Application

Chiguard[®] 328 is most suitable for protective coatings due to its non-yellowing property during baking stage. Therefore, Chiguard[®] 328 has been widely used in the following area:

- 1. Thermoplasic urethane and related polyurethane.
- 2. Two-component epoxy.
- 3. Thermosetting acrylic enamel.
- 4. Photographic coating.

A percentage of 0.1% - 0.5% of Chiguard[®] 328 is recommended for protection. Light stability of polymer can be further enhanced by use of a phenolic antioxidant (e.g. DEOX10 and 76) and a hindered amine light stabilizer (e.g. Chiguard[®] 770 and 944) in the combination with Chiguard[®] 328.

7. UV Spectrum



8. Packaging

20 kg net/Carton box