

Tinuvin® 479

Product Description Tinuvin 479 is a hydroxyphenyl-triazine (HPT) UV absorber designed to fulfill the high

performance and durability needs for automotive and industrial finishes.

Key Features & Benefits - Extremely high extinction coefficient in the UV-B and UV-A range

- Low volatility/low migration

- Excellent photo-permanence

Chemical Composition Hydroxyphenyl-triazine UV absorber

Properties

Typical Properties Appearance light yellow crystalline powder

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

butyldiglycol 2 butanol < 1 butyl acetate 17 butylglycol acetate 12 methoxypropl acetate 10 methoxypropanol 1 Solvesso® 100 ¹ 23 Solvesso® 150 ¹ 10 water < 0.01

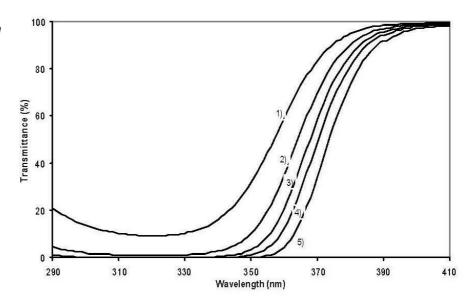
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¹ registered trademark of Esso

These typical values should not be interpreted as specifications.

UV Transmittance Spectrum

in chloroform, cell thickness: 1 cm



Line one: 0.001% Tinuvin 479, corresponds to 0.25% in a 40 μ m film Line two: 0.002% Tinuvin 479, corresponds to 0.50% in a 40 μ m film Line three: 0.003% Tinuvin 479, corresponds to 0.75% in a 40 μ m film Line four: 0.004% Tinuvin 479, corresponds to 1.0% in a 40 μ m film Line five: 0.006% Tinuvin 479, corresponds to 1.5% in a 40 μ m film

Applications

Tinuvin 479 is an hydroxyphenyl-triazine UV absorber that provides excellent performance in coatings due to:

- Extremely high extinction coefficient
- · Very high photostability for long life performance
- Very high thermal stability and performance for coatings exposed to high bake cycles and / extreme environmental conditions
- · Very low volatility
- Excellent performance in thin film applications
- Ideal spectral coverage in combination with other UV absorbers

Tinuvin 479 has been developed as an interaction-free UV absorber to be used in amine and / or metal catalyzed coating systems or in coatings applied on base coats containing such catalysts.

Its high extinction coefficient allows the formulation of coatings with reduced UV absorber levels and / or thin film applications. Combinations especially with other HPT UV absorbers and the newest generation photoinitiators makes it an excellent choice for UV curable coatings.

Tinuvin 479 is recommended for automotive OEM and refinish systems, UV cured coatings, and industrial finishes where long life performance is essential. Due to the high extinction coefficient and superior photostability, applications specifically include thin film applications. Depending on the application, the spectral coverage can be further broadened through combinations with other UV absorbers of the hydroxyphenyl-triazine or hydroxyphenyl-benzotriazole class such as Tinuvin 400 or Tinuvin 928.

The protective effects of Tinuvin 479 can be enhanced when used in combination with hindered amine light stabilizers (HALS) such as Tinuvin 123, Tinuvin 292, or Tinuvin 152. These combinations provide best protection against gloss reduction, cracking, blistering, delamination, and color change. The light stabilizers may be added to clear coats, base coats, or solid shades.

The amount of Tinuvin 479 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommend Concentrations

0.5 – 2 % Tinuvin 479 (or Tinuvin 479 + Tinuvin 400, weight ratio 1:2,

or Tinuvin 479 + Tinuvin 928, weight ratio 1:2)

+

0.5 – 2.0 % Tinuvin 123 or Tinuvin 292 or Tinuvin 152

(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 479.

Storage

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

Important

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