

Printing & Packaging

Industrial Coatings

Technical Data Sheet

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	<ul style="list-style-type: none">- <i>Extremely high extinction coefficient in the UV-B and UV-A range</i>- <i>Low volatility/low migration</i>- <i>Excellent photo-permanence</i>
Chemical Composition	Hydroxyphenyl-triazine UV absorber

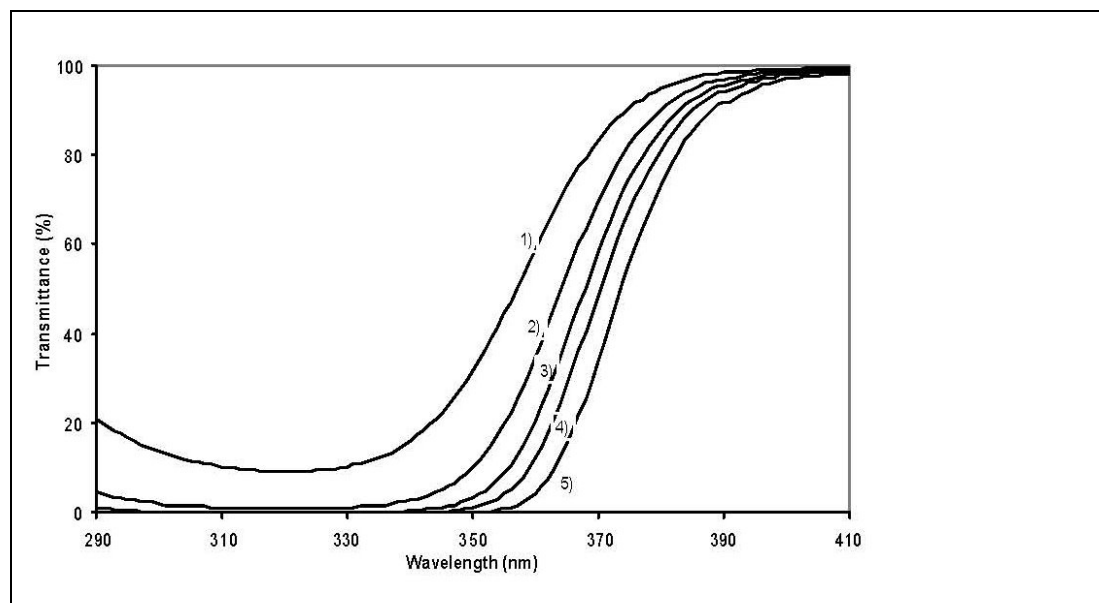
Properties

Typical Properties	Appearance	light yellow crystalline powder
	<u>Solubility at 20°C (g/100 g solution):</u>	
	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

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 µm film
Line two: 0.002% Tinuvin® 479, corresponds to 0.50% in a 40 µm film
Line three: 0.003% Tinuvin® 479, corresponds to 0.75% in a 40 µm film
Line four: 0.004% Tinuvin® 479, corresponds to 1.0% in a 40 µm film
Line five: 0.006% Tinuvin® 479, corresponds to 1.5% in a 40 µm film

Applications

Tinuvin® 479 is an HPT 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 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 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® 479.

Important

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