

Tinuvin® 5248

Light stabilizer blend

Product description

Tinuvin® 5248 is a liquid light stabilizer blend containing a triazine- based UV absorber and a basic HALS for coatings, adhesives and sealants. It was designed to meet high performance and durability requirements of exterior solvent-based automotive, industrial, architectural and decorative coatings including radiation-curable systems (UV, electron beam).

Key benefits

- Blend for coatings exposed to high baking temperatures and/or extreme environmental conditions, thermally highly stable, photo-permanent
- Contains a basic multi-purpose HALS
- The 2-hydroxyphenyl-s-triazine UV absorber used is not sensitive to metal ions and amines and does not form colored complexes in their presence
- Synergistic combination imparts superior coating protection against gloss reduction, cracking, blistering, delamination or color change, providing full substrate protection

Chemical nature

Blend based on a 2-hydroxyphenyl-s-triazine UV absorber and a basic pentamethyl piperidine HALS

Properties

Physical form

Viscous slightly yellow liquid

Technical data

(not supply specification)

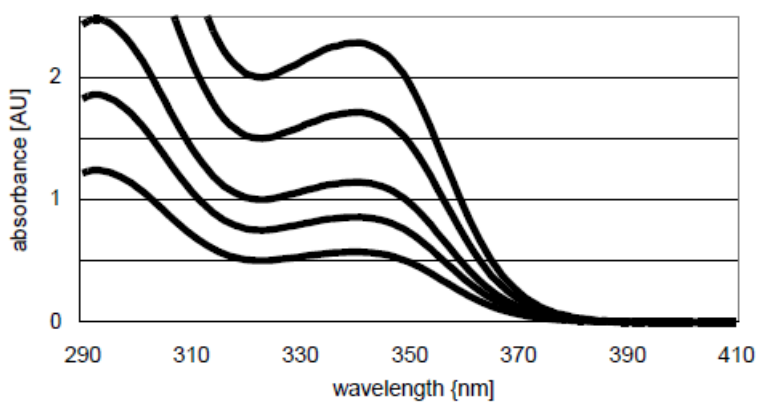
Viscosity, dynamic	DIN 53018/53019 (20 °C)	~ 2,400 mPa.s
Density	DIN 51757 (20 °C)	1.01 – 1.05 g/cm ³
Flash point	DIN EN ISO 13736	47 – 51 °C

Miscibility

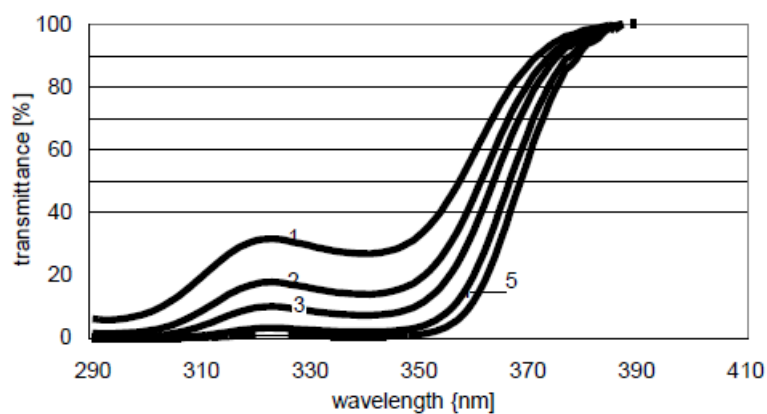
Miscible with most common organic solvents, easy to incorporate into water-based systems by use of co-solvents

Spectral properties

UV absorbance



UV transmittance



legend

- | | |
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| 1 | 40 mg/l (0.004 % \approx 1.00 % active in 40 μ m) |
| 2 | 60 mg/l (0.006 % \approx 1.50 % active in 40 μ m) |
| 3 | 80 mg/l (0.008 % \approx 2.00 % active in 40 μ m) |
| 4 | 120 mg/l (0.012 % \approx 3.00 % active in 40 μ m) |
| 5 | 160 mg/l (0.016 % \approx 4.00 % active in 40 μ m) |

The theoretical concentration in an applied 40- μ m clear coat was calculated as a function of the concentration in toluene with the help of the Lambert-Beer law. Spectra were recorded in toluene, light path length = 1 cm.

Application

Fields of application The UVA:HALS ratio chosen makes Tinuvin® 5248 especially suitable for clear coatings with a layer thickness from 40 – 80 µm and low-pigmented coatings exposed to high baking temperatures and/or to extreme environmental conditions.

- (non-acid-catalyzed) automotive and transportation coatings
- General industrial coatings
- Architectural coatings (i.e. floor or cement coatings,...)
- Heavy-duty maintenance and marine coatings
- Adhesives and sealants

Binder systems

- Thermoplastics (acrylic, vinylic, ...)
- 1K and 2K PUR (acrylic/NCO, PES/NCO, ...)
- Epoxy/carboxy (amine- and/or metal-catalyzed)
- UV- and EB-curable coatings

Caution: The basic HALS component can undergo acid/base interactions with paint components such as biocides, surfactants and pigments. It can also interfere with acid-catalyzed crosslinking reactions or retard the curing of some air-drying systems (e.g., alkyds or oil-based paints).

Recommended concentrations

The concentration of Tinuvin® 5248 depends on dry-film thickness, pigmentation and desired degree of protection. The amount required for optimum performance should be determined in trials covering a concentration range.

Dry-film thickness	By weight on binder solids
40 – 60 µm	6.0 – 4.0 %
60 – 80 µm	4.0 – 3.0 %

Storage

When kept in original unopened containers and at temperatures of 5 – 35 °C.
Tinuvin® 5248 can be stored for up to 3 years from the date of manufacture.

Safety
When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.