Tinuvin® 5100

Product description

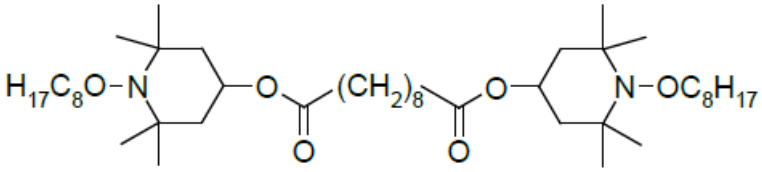
Hindered amine light stabilizer (HALS)

Tinuvin® 5100 is a liquid non-basic HALS for coatings, printing and packaging, adhesives and sealants. It is designed to meet high performance and durability requirements of all exterior solvent-based industrial and architectural coatings where basic HALS fail. It protects coatings from surface defects such as gloss reduction, cracking and chalking and also improves the retention of mechanical properties.

Key benefits

- Non-basic N-OR HALS
- Does not interact with acidic paint ingredients such as catalysts, bio-cides and pigments
- Maintains function of other performance additives in coatings, e.g.,biocides
- Good long-term performance
- High thermal stability

Chemical nature



Aminoether-substituted tetramethyl piperidine derivate

CAS number

129757-67-1

Molecular weight

737 g/mol

Properties

Physical form

yellow to amber liquid

Technical data
(not supply specification)

Viscosity dynamic	DIN 53018 / 53019 at 20 °C	~ 8.6 Pa.s
Density	DIN 51757 at 20 °C	0.96 – 1.00 g/cm³
Flash point	DIN EN ISO 13736	138 – 142 °C

Miscibility

Miscible with most common organic solvents, practically immiscible with water.

Application

Field of application

Tinuvin® 5100 is especially designed for coatings where traditional basic HALS fail due to acid/base interactions and to protect other functional additives in coatings from weathering.

- industrial and architectural coatings
- wood stains and varnishes, wood-care products
- plastic coatings, gel coats and composites
- coil coatings

For clear-coat applications, Tinuvin® 5100 needs to be combined with a UV absorber (UVA) such as Tinuvin® 400 (for industrial coatings) or Tinuvin® 99-2 (for architectural coatings).

Binder systems

- Acid-catalyzed thermosetting (alkyd, acrylic, PES/melamine)
- Alkyds, waxes, oils (air-drying systems)
- Vinylic (PVC plastisols, PVC copolymers, chlorinated resins)
- Epoxy/carboxy (amine- and/or metal-catalyzed)

Recommended concentrations

The concentration of Tinuvin® 5100 depends on the pigmentation of the coating. The amount required for optimum performance should be determined in trials covering a concentration range.

Coating type	By weight of total formulation
clear coats	0.5 %
semi-transparent coats	0.5 – 1.0 %
opaque/solid-shade coats	1.0 – 2.0 %

Storage

When kept in original unopened containers and at temperatures of 5 –35 °C, Tinuvin® 5100 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.

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