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Tinuvin® 460

Product Description

Tinuvin 460 is a UV light absorber of the hydroxyphenyl-triazine class. Due to its extremely high extinction, it provides outstanding protection to coatings and light sensitive substrates and materials. It is therefore especially suited for use in silver halide photographic papers or overprint varnishes.

Key Features & Benefits

- Solid hydroxyphenyl-triazine UVA
- Extremely high extinction in the UV-A region enables photoprotection of thin films
- Excellent photopermanence
- Low color

Chemical Composition

Hydroxyphenyl-triazine UV light absorber

Properties

Typical Properties

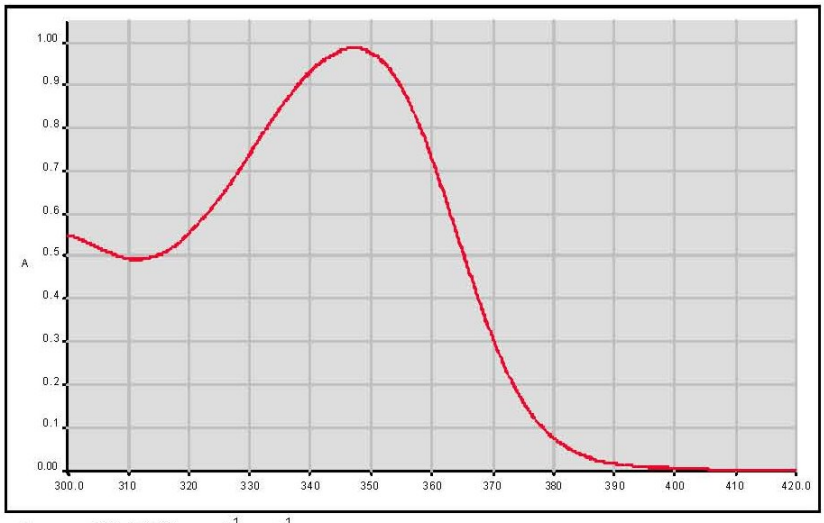
Appearance		slightly yellow powder
Melting range	°C	93 – 102

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

Butanol	not soluble
Ethyl acetate	3.2
Butyl acetate	4.3
Ethylglycol	not soluble
Methoxypropylacetate	1.9
Methylethylketone	5.7
Water	< 0.01

These typical values should not be interpreted as specifications.

Absorption Spectrum
(10 mg/l in Ethyl Acetate)



ε_{max} = 62,100 l.mol^{-1}.cm^{-1}

Applications

Tinuvin 460 is a UV light absorber of the hydroxyphenyl-triazine class. Since its absorption spectrum does not tail significantly into the visible region, it is an ideal UV absorber for those systems where initial yellowing must be kept to a minimum.

Tinuvin 460 is recommended for use in:

- Silver halide photographic materials such as color negative papers
- Overprint varnishes for commercial, publication, or packaging applications
- Industrial coatings
- Trade sale paints such as wood stains or do-it-yourself paints

In photographic applications, Tinuvin 460 can be combined with other UV absorbers, such as Tinuvin 326, to achieve desired absorption characteristics.

In silver halide color negative papers, it is particularly useful for protecting the dyes and couplers from harmful UV light.

The product can also be used in other reprographic applications in which a UV filter is needed e.g. in non-silver imaging color hardcopy.

The amount of Tinuvin 460 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommend Concentrations

0.5 – 3% Tinuvin 460

+

0.5 – 2.0 % Tinuvin 123, Tinuvin 249 or Tinuvin 292

(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 460.

Storage

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

Important

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