

Tinuvin® 770 DF

Product Description

Tinuvin 770 DF is a solid basic hindered amine light stabilizer (HALS) developed for coating, adhesive and sealant applications.

Key Features & Benefits

- Good long-term performance
- Good thermal stability

Chemical Structure

Tetramethyl piperidine derivative

$$HN$$
 O $(CH2)8 O O $NH$$

Properties

Typical Properties

Appearance white to cream crystalline granules

CAS No: 52829– 07 – 9

Molecular weight g/mol 480.7

Melting point °C (°F) 81 – 85 (178 – 185)

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

Solvesso¹ 100 20 butyl acetate 20

These typical values should not be interpreted as specifications.

Applications

Tinuvin 770 DF is designed to meet durability requirements of all exterior solvent-based industrial coatings. It protects coatings against surface defects such as gloss reduction, cracking and chalking and it ensures the retention of mechanical properties. It is broadly compatible and can be easily incorporated to achieve long term light stabilization.

Tinuvin 770 DF is recommended for applications such as:

- · Industrial coatings
- Adhesives
- Sealants

Processing

For outdoor applications, Tinuvin 770 DF needs to be combined with UV absorbers such as Tinuvin 400 or Tinuvin 99-2 (for industrial coatings) or Tinuvin 928 or Tinuvin 900 (for adhesives and sealants). For specific UV absorber recommendations, refer to individual technical data sheets.

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Binder Systems

- Hot melt (PUR, PA, SIS, SBS, EVA)
- Solvent-based adhesives (acrylic and PUR)
- Sealants (MS polymer)

The amount of Tinuvin 770 DF required for optimum performance should be determined in laboratory trials covering a concentration range. The concentration depends on the pigmentation of the coating.

Recommend Concentrations

<u>Application</u> <u>Weight % of Tinuvin 770 DF of total formulation</u>

 $\begin{array}{lll} \hbox{Clear coats} & 1.0-2.0\%\% \\ \hbox{Semi-transparent coatings} & 0.5-1.5\% \\ \hbox{Opaque/solid-shade coatings} & 1.0-2.0\% \\ \end{array}$

Opaque/solid-shade coatings 1.0 - 2.0%Adhesives and sealants 0.5 - 2.0%, depending on substrate and processing conditions

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 770 DF.

Storage

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

Important

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BASF Corporation
Dispersions and Resins
11501 Steele Creek Road
Charlotte, North Carolina 28273
Phone: (800) 251 – 0612
Email: CustCare-Charlotte@basf.com

Email: edtech-info@basf.com www.basf.us/dpsolutions

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