

# 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

## **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):

Solvesso<sup>1</sup> 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.

<sup>&</sup>lt;sup>1</sup>Trademark of Exxon Mobile Corporation.

#### **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**

The descriptions, designs, and data contained herein are presented for your guidance only. Because there are many factors under your control which may affect processing or application/use it is necessary for you to make appropriate tests to determine whether the product is suitable for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, OR DATA MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, DATA OR DESIGNS PROVIDED BE PRESUMED TO BE A PART OF OUR TERMS AND CONDITIONS OF SALE. Further, you expressly understand and agree that the descriptions, designs, and data furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for same or results obtained from use thereof, all such being given to you and accepted by you at your risk.

Tinuvin is a registered trademark of BASF Group.

© BASF Corporation, 2019



BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico. For more information on Responsible Care® go to: U.S.: www.basf.us/responsiblecare\_usa Canada: www.basf.us/responsiblecare\_canada México: www.basf.us/responsiblecare\_mexico

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

October 2019 Rev 4 page 3 of 3