Irganox® 1010-DW ECO

Product description

Irganox 1010-DW ECO is a specialized formulation designed to enhance the durability and longevity of various organic substrates by providing superior protection against thermal and oxidative degradation. This product is a 20% active aqueous dispersion of Irganox® 1010, which is a well-known and widely used phenolic antioxidant.

The primary function of Irganox® 1010 is to act as a stabilizer for materials subjected to heat and oxygen during processing and in their end-use environments. The reduction of radicals during the production process plays a critical role in enhancing the longevity of materials.

Moreover, the eco-friendly aspect of Irganox 1010-DW ECO is noteworthy, as it aligns with the increasing demand for sustainable and environmentally friendly additives in the manufacturing processes. By using this product, manufacturers can enhance the stability of their products while also adhering to stricter environmental standards.

Key benefits

- Good compatibility in many polymer matrices
- Excellent compatibility with water borne dispersions
- Low volatility / Low VOC / Odorless
- High resistance to extraction also under continuous wash water conditions
- Can be used in combination with other additives such as co-stabilizers and light stabilizers of the Tinuvin® -DW series
- Excellent efficiency due to high content of phenolic moieties

Chemical nature

Pentaerythritol tetrakis (3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate) encapsulated in a water based acrylic dispersion

Properties

Physical form

Liquid white dispersion

Technical data

(not supply specification)

Active Content		~20 %
Solid Content		~40 %
Density	(20 °C, 1,013 hPa) Pyknometer	~1,045
Viscosity, dynmaic	(23°C)	~50 mPa.s
pH value		~7,5

Application

Irganox 1010-DW ECO is particularly effective in water-based formulations that encounter high temperatures throughout their service life. The additive is designed to integrate seamlessly into systems such as acrylic, styrene-acrylic, styrene-butadiene and polyurethane dispersions, which are commonly used in various applications including coatings, adhesives, sealants and elastomer.

Formulation guideline

For water-borne applications that demand long-term thermal stabilization, the recommended concentration range for IRGANOX 1010-DW ECO is between 0.5% and 1% based on the total solids of the formulation. This dosage is critical for ensuring that the antioxidant is effective in preventing degradation due to heat exposure during processing and throughout the product's lifecycle.

When it comes to providing comprehensive protection against environmental factors, particularly in applications exposed to UV light, it’s advisable to use IRGANOX 1010-DW ECO in combination with light stabilizers.

The synergy between antioxidants and UV stabilizers is essential for maximizing the durability and performance of water-based products.

While IRGANOX 1010-DW ECO effectively mitigates thermal oxidative degradation, light stabilizers can address the photodegradation that occurs when materials are exposed to ultraviolet radiation.

Storage

To maintain the efficacy and longevity of Irganox 1010-DW ECO, it is essential to store it correctly.
The recommended storage conditions involve keeping it in a closed container at mild ambient temperatures.

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.

BASF SE
Resins &Additives (Europe)
67056 Ludwigshafen, Germany
www.basf.com/resins

30854126