

Irgastab[®] UV 22

Product description In-can stabilizer for all kinds of UV/EB inks and UV/EB overprint varnishes

Key benefits

- High performance in-can stabilizer for radically curing UV/EB systems
- Long-term shelf life stability even under critical conditions
- Minimum impact on cure speed at high dosage levels
- Liquid form facilitating handling, dosage and solubilization
- Compatible with all common acrylate, vinyl and vinyl ether monomers and oligomers

Chemical nature Quinone methide compound dissolved in propoxylated glycerol triacrylate

Properties

Physical form clear, viscous, yellow to amber liquid

Technical data

(not supply specification)

Viscosity, dynamic	(23 °C)	~ 139 mPa.s
Density	(20 °C)	~ 1,07 g/cm ³
Refractive index n_d	(20 °C)	~ 1,49
Inhibitor content	Internal method	13.0 – 15.0 % (w/w)

Application

Irgastab® UV 22 is a highly efficient in-can stabilizer inhibiting gelling of radically curing UV/EB inks and UV/EB overprint varnishes already at low dosage levels. Irgastab® UV 22 helps to preserve proper shelf life stability during production and processing as well as during transport and storage. At optimized dosage levels no discoloration of UV/EB clear coats and UV/EB whites is observed.

The typical dosage range for Irgastab® UV 22 in the finished product is 0.2 - 1.3 % (w/w) depending on the formulation to be stabilized. The necessary in-can stabilizer concentration is determined by the type of monomers, oligomers, pigments, additives and photoinitiators as well as by the application conditions encountered. Apart from formulation aspects parameters like temperature conditions during transport and storage have to be taken into account as well.

Irgastab® UV 22 is recommended for all types of

- UV/EB offset inks
- UV/EB flexo inks
- UV letterpress inks
- UV screen inks
- UV inkjet inks
- UV/EB overprint varnishes
- UV/EB wood coating lacquers (pigmented and non-pigmented ones)

A dosage of 0.5 % (w/w) in-can stabilizer is considered to be a good starting point with the suggested dosage range being 0.3 - 1.3 % (w/w) for pigmented systems and 0.2 - 0.8 % (w/w) for non-pigmented ones. For pigmented systems it is advisable to add Irgastab® UV 22 already before the grinding step.

It is generally not recommended to use Irgastab® UV 22 levels above 1.5 % (w/w), because this may have a negative impact on cure speed and in critical systems also on colour. Therefore, the final dosage level should always be determined experimentally first by corresponding lab trials according to the requirements of the specific application in order to realize an optimum balance between performance and cost-in-use.

Storage

Product ought to be kept within sealed unopened containers. Containers should be protected from light and heat and stored at temperatures between 5 – 30 °C.

If crystallization has occurred under such conditions, the product can be turned liquid again by heating it gently until the crystals dissolve back into the liquid. Mild heating, such as at 45°C, can be used to dissolve the crystals and reconstitute the original quality of the material. This is often done when the crystals have formed due to a change in temperature conditions, and reversing these changes can help to restore the substance to its original state.

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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