

Efka[®] IO 6785

General

Ionic liquid, conductivity promoter

EFKA[®] IO 6785 is a medium active additive for a variety of physically drying and reactive coatings. It is used to adjust antistatic property of coatings and resistivity in liquid formulations to prevent from static charge or dust attraction during and after the drying process.

Chemical nature

Non-functional, imidazolium salt

Properties

Physical form

clear colorless to yellowish liquid

Shelf life

EFKA[®] IO 6785 should be stored in its originally sealed containers in a clean and dry environment and prevented from frost. If the recommended storage conditions are observed EFKA[®] IO 6785 has a minimum remaining shelf life of 6 months from date of arrival at customers. EFKA[®] IO 6785 is hygroscopic. Therefore keep containers tightly closed and avoid handling at high humidity. If possible, exchange air in opened containers by dried air or nitrogen.

Typical properties (Not specifications)

Purity, %	>98
Water content, %	<0.05
Viscosity, mPa.s	120
Melting point, °C	<-30
Color (Gardner)	≤ 7

Application

Formulation

EFKA[®] IO 6785 is designed for waterbased and solventbased formulations. It accepts incorporation together with other additives into the mill base or at the end of the production process.

For the production of antistatic coatings regular amounts of EFKA[®] IO 6785 in clear coats and pigmented paints ranges from 1 – 5 %, in special cases up to 10 %, calculated on solid paint. Depending on pigments and dispersing agent antistatic additive content may vary because of the interaction with pigment surface; the same could happen with mineral matting agents.

High amounts of solid conductive fillers (e.g. carbon black, conductive pigments, and carbon nano tubes) in formulations or polymers reduce the elasticity, flexibility and break elongation. The combination with EFKA[®] IO 6785 has a synergistic effect. It improves relaxation and reduces the total amount of conductive additives needed.

Like other low molecular weight binders and plasticizers, the non-reactive EFKA® IO 6785 has a softening effect on the final coating.

Solubility / Compatibility

EFKA® IO 6785 can be formulated with polymer dispersions, polyester, epoxy and acrylate resins. Compatibility with alkyd resins and nitrocellulose is limited but good enough for adjustment of coatings resistivity. Many combinations result in turbid but stable emulsions. Because of numerous resins and resin combinations available in the market the formulator needs to carefully check compatibility and storage properties before use.

EFKA® IO 6785 shows excellent acceptance in hydrophilic solvents and diluents like water, methanol, ethanol, Solvenon® PM, glycol ethers and glycol esters, acetone and propylene carbonate. They are not soluble in pure hydrocarbons, non-polar acetates, higher ketones and aromatic solvents.

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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