

KOBOND™ 4023 Epoxy Phosphate Ester Adhesion Promoter

INTRODUCTION

KOBOND™ 4023 is a high-molecular-weight epoxy phosphate ester adhesion promoter designed to improve the adhesion of coatings to difficult metal substrates. Its molecular structure features multiple anchoring groups that provide strong interaction with metal surfaces, while hydroxyl functionality can participate in crosslinking reactions with suitable resin systems.

KOBOND™ 4023 is particularly suitable for baking coatings and two-component polyurethane coatings. In addition to improving adhesion, it can enhance film flexibility and impact resistance while maintaining good color stability under high-temperature baking conditions.

BENEFITS / EFFECTS

- Excellent adhesion to metal substrates
- Effective on aluminum, zinc and stainless steel
- Improves adhesion to electroplated metal surfaces
- Multiple anchoring groups for strong interfacial interaction
- Enhances film flexibility and impact resistance
- Good compatibility with crosslinking resin systems
- Good color stability during high-temperature baking

PHYSICAL PROPERTIES

Appearance	Yellow transparent liquid
Non-volatile matter, wt%	Min.68
Density, g/cm ³ at 25°C	1.12
Solvent	2-Butoxyethanol

These values are typical and are not intended for use as specifications.

APPLICATIONS

KOBOND™ 4023 is recommended for acrylic/melamine, alkyd/melamine and polyester/melamine baking coatings, as well as two-component polyurethane coatings. It is particularly suitable for coil coatings and other industrial metal coatings where improved adhesion to aluminum, zinc, stainless steel, electroplated surfaces and other difficult metal substrates is required.

KOBOND™ 4023 is not recommended for conventional self-drying coating systems.

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USAGE GUIDELINES

The recommended dosage of KOBOND™ 4023 is 0.1-5.0%, based on the total formulation. Optimum addition level should be determined through laboratory trials.

PACKING

KOBOND™ 4023 is supplied in 25 kg pail.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

STORAGE

Keep the container tightly closed and store in a cool, dry and well-ventilated place. KOBOND™ 4023 has a shelf life of 24 months from the date of manufacture in the original unopened packaging.

DISCLAIMER

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability.

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