

Zirmel® Series (Zirmel 1000, Zirmel XL)

Appearance and general characteristics

Zirmel Series of products consist of a clear, aqueous alkaline solution of stabilized potassium zirconium carbonate, offering all the benefits of Bacote®, and available in multiple concentrations. In applications where an ammoniacal odor is considered undesirable or unacceptable, Zirmel is recommended. Zirmel products are effective inorganic crosslinkers suitable for practically all types of pigmented paper and paperboard applications.

Product benefits

Formaldehyde-free and Ammonia-free

Environmentally conscious

Rapid cure

No need for elevated temperatures or extended curing time.

Effective with all commonly used binders

Starch, CMC, casein, proteins, carboxylated latex, dextrin, styrene acrylic, PVOH, etc.

Improved printability

Achieved through optimal water resistance, an open coating structure, reduction of contact angle and uniform distribution of binders throughout the coating reducing mottle.

No adverse effects on optical properties

No time or heat exposure yellowing.

Chemical and physical properties (typical values)

Table 1.

Grade	ZrO ₂ (wt. %)	pH	S.G
Zirmel 1000	20	11–11.5	1.56
Zirmel XL	10	8.5–10.5	1.38

Applications

1. Binder insolubilizer for paper and paperboard coatings, along with dry-laid non-woven materials
2. Deposit control in the wet-end of the paper-making process
3. Strength additive for alkaline-sized paper
4. Component of water-based inks, overprint varnishes, paints, adhesives, coatings, etc.
5. Antimicrobial treatment for textiles and timber, especially for fixation of copper salts
6. Component of textile, leather and paper water-repellent formulations
7. Coagulant in the manufacturing of synthetic leather-cloth and non-wovens
8. Metal pre-treatment coatings
9. Precursor to zirconia (ZrO₂) in catalyst systems
10. Fiberglass wall coverings
11. Crosslinker for polyvinyl alcohol (for neutral/basic conditions)

Packaging

- Plastic pails
- Plastic drums
- Plastic IBCs/totes
- Bulk quantities available upon request

Safety data sheet

Regional SDS information is available on request.

Discover more at

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