

**PRODUCT SPECIFICATIONS**

| | Inspection Method | Value |
|--------------------|-------------------|-------------------|
| Solids content | DCC method | 60% |
| Viscosity at 25 °C | DCC method | 1500 - 2500 mPa.s |
| pH | DCC method | 4.5- 6.5 |

TYPICAL PROPERTY

| | Inspection Method | Value |
|--------------------|-------------------|-------------------|
| Film Appearance | Visual | Clear, glossy |
| Tg | DCC method | 0 °C |
| Stabilizing System | | Polyvinyl Alcohol |

INTRODUCTION

DA-103 is a non-plasticized aqueous milky white copolymer dispersion based on vinyl acetate and ethylene. After evaporation of its water content, DA-103 forms a flexible film with best adhesive properties for broad applications.

In generally, DA-103 is used as general adhesive for packaging, bookbinding, and bonding for plastic films, coated papers.

Furthermore, DA-103 is broadly used as a particularly suitable base emulsion for the formulation of adhesives for difficult substrates, such as lacquered surfaces, foils and plastic films in the packaging and paper industry.

DA-103 is also an excellent base emulsion for floor-, wall- or ceiling adhesives.

It shows good resistance against aging, light or saponification. As a result, the durability of your products could be enhanced with usage of DA-103 and suitable applicative industrial formulations. Besides, DA-103 is very friendly product for our environment.

From the viewpoint of industrial applications, the compatibility of raw materials is considered important to manufacturers.

Compatibility with different tackifiers, plasticizers, solvents and extenders is generally good, although this has to be checked in each individual case of course.

RECOMMENDED APPLICATIONS

As mentioned before, DA-103 provides a soft and flexible film to porous and non porous substrates of all kind of common plastic materials.

If at least one substrate is porous, aqueous formulations can be used for directly bonding the substrates, while plastic/plastic, film/film or film/lacquered surfaces afford application of the emulsion (or its formulation) onto one substrate and intermediately drying, followed by sealing the other non-polar substrate. Depending on the machinery, of course such a sealing process could be used also bonding non-polar substrates to polar ones.

The popular use of DA-103 is for bonding difficult substrates, like

- plastic- (specially PVC-) or metal films to substrates of all kind
- printed paper, lacquered paper and board
- plastic materials to porous or even non-porous substrates
- ceramic tiles to cementitious substrates

As DA-103 is compatible with cement, we can reinforce waterproofing capability of cementitious compounds formulated with our product.

SAFETY & STORAGE

In general, DA-103 is considered safe for its intended use. However, as this class of products always contains minor amount of residual vinyl acetate monomers, adequate ventilation is recommended in rooms where DA-103 is handled. Generally when working with polymer emulsions, protective clothes, gloves and also goggles should be used. Splashes on the skin or in the eyes should immediately be removed by irrigation with clean water.

DA-103 should be stored in sheltered areas at temperatures between 5 and 40 °C; do never store under freezing conditions. Opened containers should be closed soon to prevent skinning. If the product is stored for a longer period, stirring is recommended before use. Shelf life of DA-103 is minimum 6 months, provided the product is stored in original, unopened containers under proper conditions.



DA-103

Dairen Chemical Corporation

VAE Emulsion

DA-103 is adequately preserved to prevent microbial contamination. However, if the product is kept in original containers which have been opened, or is transferred to other tanks, the product should be added with suitable preservative package to protect it against microbial attack. Equipment and facilities used to transfer the product should also be kept adequately clean. Finished products manufactured from polymer emulsions usually also require preservation.

ADDITIONAL INFORMATION

When DA-103 is used in application we do not mention, the usage of DA-103 is the responsibility of purchaser.

The usage and processing must be complied with related legal regulations.

Our product conforms to the food contact clearance:

FDA 175.105

FDA 176.170

FDA 176.180

BfR XIV

SAFETY NOTICE

Material Safety Data Sheets are available on request from sales offices or may be printed via web site www.dcc.com.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of products is guaranteed under our General Conditions of Sale. Neither Dairen nor its agents nor its distributors accept liability for damages arising from the use of our product or our recommendation. The recommendations should be evaluated by the customers' different operating conditions and raw materials. It is our customers' responsibility to avoid infringement of the rights of third parties. We reserve the right to modify the document as the technical development.