



# DA-1100

## Dairen Chemical Corporation

## VAE Redispersible Powder

### PRODUCT SPECIFICATIONS

	Inspection Method	Value
Solids Content	DCC method	99 ± 1%
Ash Content	DCC method	10 ± 2%
Appearance	Visual	White Powder
Tg	DCC method	15±5 °C

### TYPICAL PROPERTY

	Inspection Method	Value
Polymer Type		VinylAcetate-Ethylene copolymer
Protective Colloid		Polyvinyl Alcohol
Bulk Density	DCC method	0.5 g/ml
Average Particle Size	DCC method	90 μm
Viscosity at 25 °C	DCC method	2000 mPa.s
pH	DCC method	7

### Introduction

DA-1100 is a water-redispersible vinyl acetate/ethylene copolymer powder that is readily dispersible in water and forms stable emulsion.

This redispersible powder is especially recommended for blending with inorganic binders such as cement, gypsum and hydrated lime, or as a sole binder for the manufacture of construction adhesives.

### Applications

DA-1100 improves adhesion, flexural strength, abrasion resistance and workability of modified compounds such as tile adhesives, repair mortars, self-leveling compounds, mineral plasters and gypsum based compounds.

It is therefore compatible with mortar additives used to achieve special processing characteristics.

DA-1100 contains a fine, mineral filler as anti-block agents. It is free of solvents, plasticizers and film-forming aids.

### Recommended Uses

#### Tile adhesives

For thin-bed tile adhesives with good frost resistance, we recommend using 1~5% DA-1100 and about 0.2 - 0.6 % of cellulose ether or other appropriate cellulose derivatives as water retention agent, and, if necessary, organic fibres to reduce slump.

#### Repair mortars

DA-1100 is suited for modifying repair mortars, especially concrete renovation mortars. DA-1100 improves the adhesion, flexural strength, abrasion resistance and workability.

We recommend adding 1 – 6 % redispersible powder.

#### Self-leveling compounds

DA-1100 is suitable for modifying self-leveling flooring compounds. It is thoroughly compatible with all commonly-used superplasticizers, such as condensation products of melamine sulphonic acid and naphthalene sulphonic acid or lignin sulphonates. Addition of the dispersion powder improves adhesion, abrasion resistance, flexural strength, workability and the flow properties of the compounds.

DA-1100 is especially suitable for use in self-leveling flooring compounds which contain casein. The compounds display very high tolerance towards excess water, have little tendency to slump, and have a very smooth, crater-free surface.

DA-1100 is suitable for use with standard inorganic binders such as Portland cement, high-alumina cement, anhydrite, gypsum, lime and mixtures thereof.

#### Mineral plasters

DA-1100 added to cement and lime-cement decorative rendering improves their adhesion and flexibility. To achieve optimum results, between 1 and 6% DA-1100 based on the total weight should be added. In addition, 0.1 – 0.5 % cellulose ether or starch ether or a combination of the two should be incorporated.

#### Gypsum based compounds

The addition of DA-1100 to trowelling compounds and boards containing gypsum as binder increases flexural strength, impact resistance and adhesion. To improve water retention, cellulose ether should be added.

DA-1100 is also suited for use in the formulation of self-leveling compounds based on gypsum and anhydrite. The recommended amount is 1 – 6 %.



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### **Processing**

For the production of powdered products such as dry mortars, tile adhesives, troweling compound. DA-1100 redispersible powder is mixed with the dry, finely divided additives in suitable mixers. Pressure or excessive shear in the mixer and the transferring line should be avoided, since this will raise the temperature, leading to agglomeration of the thermoplastic resin particles. After sufficient water has been added, mortars or trowelling compounds can be mixed by hand or machine.

Since mixing by hand only generates low shear forces, it is best to allow the mixture to mature by leaving it to stand for 5 minutes, and then to stir it again.

### **Storage**

DA-1100 redispersible powder should be stored in cool and dry environment. It is recommended to use within 6 months, preferably be used as soon as possible in summer. Storage in high temperature and humidity conditions will increase the risk of caking. Opened containers should be used as soon as possible, if not, should be resealed to prevent ingress of moisture from the air.

DA-1100 redispersible powder supplied in paper bags should not be stacked. Prolonged heavy pressure may cause caking. Storage under pressure should also be avoided.

### **Packaging**

25 kg paper bags  
Big Bags (450/550/600 kg)

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