



# DA-1400

## Dairen Chemical Corporation

## VAE Redispersible Powder

### PRODUCT SPECIFICATIONS

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

### TYPICAL PROPERTY

	Inspection Method	Value
Polymer Type	DCC method	VinylAcetate-Ethylene copolymer
Protective Colloid	DCC method	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-1400 is a water-redispersible vinyl acetate/ethylene copolymer powder that is readily dispersible in water and forms stable emulsion. This resin is soft and flexible, because of its relatively high ethylene content. Its glass transition temperature is below freezing point.

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

### Applications

DA-1400 improves adhesion, flexural strength, plasticity and workability of modified compounds such as tile adhesives, sealing slurries and thermal insulation systems.

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

DA-1400 contains a fine, mineral filler as anti-block agent. 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-1400 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. To obtain adhesives with greater plasticity, the proportion of redispersible powder should be increased, the amount of cement reduced.

#### Sealing slurries

DA-1400 is recommended as an additive for sealing slurries, due to it has a water resistance in mortar when added more than 9% DA-1400.

#### Thermal insulation systems

To obtain adhesives with greater plasticity, it is advisable to use no less than 3 % DA-1400 and 0.1 – 0.3 % of a suitable water retention agent such as methyl cellulose.

If the adhesives are required to bond sheets of extruded polystyrene foam, preliminary tests are essential.

#### Processing

For the production of powdered products such as dry mortars, tile adhesives, troweling compound. DA-1400 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-1400 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-1400 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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