Technical Datasheet (DA-1420)

**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Inspection Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids content</td>
<td>DCC method 98.00 % min</td>
</tr>
<tr>
<td>Ash Content</td>
<td>DCC method 8.00 - 12.00 %</td>
</tr>
<tr>
<td>Appearance</td>
<td>Visual White Powder</td>
</tr>
<tr>
<td>Tg</td>
<td>DCC method -20.0 ~ -10.0 °C</td>
</tr>
</tbody>
</table>

**TYPICAL PROPERTY**

<table>
<thead>
<tr>
<th>Inspection Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer Type</td>
<td>Vinyl/acetate-Ethylene copolymer</td>
</tr>
<tr>
<td>Protective Colloid</td>
<td>Polyvinyl Alcohol</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>DCC method 0.5 g/ml</td>
</tr>
<tr>
<td>Average Particle Size</td>
<td>DCC method 90μm</td>
</tr>
<tr>
<td>Viscosity at 25 °C</td>
<td>DCC method 2000 mPa.s</td>
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<tr>
<td>pH</td>
<td>DCC method 7</td>
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</tbody>
</table>

**INTRODUCTION**

DA-1420 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, gypsum and hydrated lime, or as a sole binder for the manufacture of construction adhesives.

**APPLICATIONS**

DA-1420 improves adhesion, flexural strength, plasticity, abrasion resistance and workability of modified compounds such as tile adhesives, repair mortars, thermal insulation systems and mineral plasters.

DA-1420 contains a fine, mineral filler as anti-blocking 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-1420 and about 0.2 - 0.6 % of cellulose ether or other appropriate cellulose derivatives as water retention agent, and, if necessary, organic fibers to reduce slump.

**Repair mortars**

DA-1420 is particularly well suited for modifying repair mortars, especially concrete renovation mortars. DA-1420 improves the adhesion, flexural strength, water retention, abrasion resistance and workability.

We recommend adding 1 – 6 % redispersible powder.

**Thermal insulation systems**

To obtain adhesives with greater plasticity, it is advisable to use 2.5% DA-1420 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.

**Mineral plasters**

DA-1420 added to cement and lime-cement finishing plasters improve their adhesion and flexibility. To achieve optimum results, between 1.0 and 6.0% DA-1420 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.

**PROCESSING**

For the production of powdered products such as dry mortars, tile adhesives, troweling compound. DA-1420 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-1420 redispersible powder should be stored in cool and dry environment. It is recommended to use within 9 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-1420 redispersible powder supplied in paper bags should not be stacked. Prolonged heavy pressure may cause caking. Storage under pressure should also be avoided.

**SAFETY NOTICE**

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

**PACKAGING**

25 Kg paper bag

Big Bag (size on request)

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