Devine Chemicals Ltd

DeCAL 1032

Thickener and Rheological Control Agent.

DeCAL 1032 is an acrylic copolymer emulsion in water. The polymer provides the rheological control effect through extensive swelling of the high molecular weight polymer in alkaline conditions, in the presence of water. This product gives more efficient thickening than our DeCAL 1030.

1. Typical Properties.

Appearance :	White liquid (emulsion)
pH :	3.5
Solid content :	30%
Viscosity at 25°C :	5cps (Brookfield @20 rpm)
Density at 20°C :	1.05 g cm^{-3}

2. Applications.

DeCAL 1032 is an ideal rheological control additive for water-borne coatings. Use of **DeCAL 1032** allows formulation of coatings with an advantageous thixotropic behaviour giving non stringy formulations which are easy to apply over a wide range of speeds and or processes. Such formulations are ideally suited for airless spray applications. **DeCAL 1032** is effective in the pH range optimally 7.5 – 10.5

Since **DeCAL 1032** is a synthetically derived product it is less susceptible to microbiological attack than derivatives of cellulose. Consequently the paint formulator can substantially reduce the level of biocide leading to a broader area of application.

Devine Chemicals Limited, Prospect Business Park, Leadgate, Consett, Durham, United Kingdom DH8 7PW. Tel: +44(0) 1207 580101 Fax: +44(0) 1207 580096. email: info@devinechemicals.co.uk

Rheological control additives should preferably be added at the final stage of coating manufacturing, not in the pigment grinding stage as unrecoverable damage to the thixotropic rheology can occur at high shear stress. **DeCAL 1032** is convenient to add as a post additive in liquid form thereby, offering flexibility in viscosity adjustment from batch to batch.

Provided efficient mixing equipment is available **DeCAL 1032** can be poured directly into the mix. However it is sometimes easier to add **DeCAL 1032** by diluting it 1:1 or even 1:2 with water to avoid shocking the system.

Should at any time the pH of the final system fall below 7.5 then additional alkali, ammonium or other base is necessary to reactivate the thickening mechanism. Use of volatile alkali (e.g. ammonia) as neutralising agent improves the water resistance property of the dry film. The amount of **DeCAL 1032** required for optimum performance should be determined in trials covering a concentration range.

Recommended addition level: 1.0 – 3.5% **DeCAL 1032** based on total formulation.

3. Safety & Handling.

DeCAL 1032 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.