



DeCAL 1104E

Associative Thickener and Rheological Control Agent.

DeCAL 1104E is an acrylic copolymer emulsion in water. This medium molecular weight hydrophobic polymer provides a rheological control effect through extensive swelling and association in alkaline conditions. In matt and semi-gloss paint this product improves flow and levelling performance, sag resistance and anti-settling. It also gives much less spattering in paints applied by roller.

1. Typical Properties.

Appearance :	White liquid (emulsion)
pH :	2.5
Solid content :	30%
Viscosity at 25°C :	30mPa.s (Brookfield RVT)
Density at 20°C :	1.06 g cm ⁻³

2. Applications.

DeCAL 1104E is an ideal rheological control additive for water-borne coatings. Due to its associative thickening action its efficiency will be determined largely by interactions with other formulation components. **DeCAL 1104E** offers excellent compatibility in pigmented systems, reducing flocculation due to its associative nature and providing excellent colour development. Since **DeCAL 1104E** is a synthetically derived product it is also less susceptible to microbiological attack.

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 thickening mechanism can occur at high shear stress. **DeCAL 1104E** is convenient to add as a post additive in liquid form thereby, offering flexibility in viscosity adjustment from batch to batch. It is recommended that **DeCAL 1104E** is easier to add by diluting it 1:1 or even 1:2 with water to avoid shocking the system.



DeCAL 1104E is effective in the pH range optimally 7.5 – 10.5. 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 1104E** required for optimum performance should be determined in trials covering a concentration range.

Recommended addition level: 1.0 – 2.5% **DeCAL 1104E** based on total formulation.

3. Safety & Handling.

DeCAL 1104E should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

We hope this information will be of value and if necessary we will be glad to offer additional technical advice. Please note that all our information is given in good faith, we can assume no responsibility for any liability incurred. Data and results should be confirmed by the Buyer by testing the product under its intended conditions of use.

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