



# DeCAL PS 14

## POLYETHER POLYURETHANE THICKENER

**DeCAL PS 14** rheology modifier allows the paint formulator to adjust medium and high shear viscosities to improve tool load, film build and brush drag. In order to obtain the best balance of flow and sag resistance it can be used in combination with other thickeners, of natural or synthetic origins.

### 1. Typical Properties

Chemical nature :	Nonionic hydrophobically modified water soluble polyurethane
Appearance :	viscous liquid
Solid content :	40% in water/Butyl Carbitol
Density (20° C) :	approx. 1040 g/l.
Viscosity :	1500 - 2500 mPas (Brookfield RVT 20°C - 20 rpm)
pH:	approx.. 7

### 2. Applications & Features

**DeCAL PS 14** is a rheology modifier designed for medium and high shear viscosity control. It is compatible with a wide range of other rheology modifiers such as acrylic or cellulosic thickeners. The product can be used as the sole thickener in semi-gloss and satin dispersion paints improving storage and giving excellent leveling without sag.

Water and scrub resistance of dry films can be improved if part or whole of the cellulosic ether is replaced by **DeCAL PS 14**. Due to its synthetic nature bacterial, fungal and enzyme attack can be reduced compared to thickeners derived from natural products. It may be possible to reduce the level of preservative/fungicide in a formulation, however suitable tests should be employed to confirm such effects.

**DeCAL PS 14** is readily handled and can be directly incorporated into the formulation. It should not be pre-diluted with water. In order to achieve better control of the final viscosity it should ideally be added as the last component of the formulation.

Typical dosage levels:

When used as the sole thickener, **DeCAL PS 14** should occur at a level between 0.1 and 0.6% dependent on the formulation.

When used as a co-thickener with low shear effective thickener, typical addition levels are between 0.05 to 0.4%

Actual dosages must be determined by experimentation to study both application properties and stability to long term storage.

**DeCAL PS 14** can be introduced during the grinding stage and/or during the letdown, after the polymer dispersion has been added.

**Benefits:**

**DeCAL PS 14** provides:

- Improved tool load
- Improved film build
- Improved brush drag
- Improved levelling
- Reduced settlement
- Designed to be used as either the sole or co-thickener
- An easy to handle and high solids liquid

### **3. Safety & Handling.**

**DeCAL PS 14** 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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