# TECHNICAL LEAFLET

# **DEMPOL ST 130**

## APEO free. STYRENE ACRYLIC BINDER FOR PAINT

DEMPOL ST 130 IS AN AQUEOUS COPOLYMER EMULSION OF STYRENE -ACRYLIC ACID ESTER. IT IS A GENERAL PURPOSE BINDER.

### **EMULSION PROPERTIES**

Type of Polymer : Styrene-Acrylic Acid Ester Copolymer

Solid Content (%)  $: 50 \pm 1$ pH (at 25°C) : 7-9

Particle Size (micron) : 0.2 - 0.5

Viscosity (Brookfield RVT-II +) (at 25 °C) : 10000 – 20000 mPa.S (spindle:6/10 rpm)

Stabilizing System : Anionic-Nonionic

Free Monomer Content (%) : < 0.3

Density (at 20°C) : 1.02 - 1.06 (gr/ml)

Minimum Film Forming Temperature ( $^{\circ}$ C) : 0 ( $\pm$ 1)

Film Appearance (at 25°C) : Clear, very flexible gloss

Glass Transition Temperature ( $^{\circ}$ C) : + 3.35

#### **APPLICATIONS**

- Interior & Exterior Paints
- Textured Finishes
- Architectural Applications
- Plasters
- Roof Coatings, Flexible Coatings

#### **FEATURES**

- Good water resistance and scrub resistance
- Good paint stability
- Clear, glossy and flexible film.
- High pigment binding capacity

#### **PROCESSING**

DEMPOL ST 130 exhibits very good compatibility with pigments and fillers and has a high pigment binding capacity.

Paints are produced in the conventional method in a high-speed impeller mill. It's recommended that the pigments and extenders are thoroughly dispersed by wetting agents (e.g. 0930) and dispersing agents (e.g. PA 40 NS) before the emulsion is added.

DEMPOL ST 130 has a tendency to foam as all small particle dispersions. It is essential to add defoamer during the process of producing emulsion paints and similar applications.

To arrange the viscosity and processing properties of emulsion paints and textured coatings , plasters etc. various types of thickeners can be added. Like cellulose ethers, acrylic thickeners (e.g. SA 65) and polyurethane thickeners.

DEPOL ST 130 exhibits good film formation at temperatures above 2°C. It is necessary to add suitable coalescing agents (e.g. Texanol or Buthyl Diglycol Acetate) in amounts of 0.1 - 0.4% in terms of the whole formulation.

Glycols improve the freeze-thaw stability and glossy of the finished products but do not cause any reduction of the film forming temperature.

If an exceptionally film is required. It is possible to mix DEPOL ST 130 with harder polymer dispersion of styrene-acrylic emulsion DEMPOL ST 120 which yield clear films are commonly used. Vinyl Acrylic and pure acrylic emulsions may also be mixed with DEMPOL ST 130 but these mixtures generally exhibit dull films that have no technical advantages.

Eventhough DEMPOL ST 130 is protected from microorganisms. It is required to add antibacterial agents to the finished products to ensure good storage stability.

#### **SAFETY**

PERSONAL PROTECTION

: Wear suitable protective clothing , gloves and glasses  $% \left( x_{1},x_{2}\right) =x_{1}^{2}$ 

for eye / face protection.

**SKIN CONTACT** 

: Wash skin as soon as possible with plenty of water.

**EYE CONTACT** 

: Flush immediately with plenty of water, keeping eyelids open, for at least 15 minutes. Remove contact lenses.

Seek for medical assistance.

#### **HANDLING & STORAGE**

HANDLING

: Ventilate the working place thoroughly. Avoid contact with skin, eyes and clothes. No eating and drinking in the work place.

**STORAGE** 

: Stable for 12 months, in close drums at ambient temperature (+5 / +40°C) avoid freezing temperatures and sources of heat and direct sunlight.

#### NOTE

The above information is based on our knowledge and experience. In view of many factors that may affect processing and application, these data do not relieve end-users from the responsibility of carrying out their own tests and experiments.

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