# TECHNICAL DATESHEET

# **DEMPOL VA 310**

#### DEMPOL VA 310 IS AN AQUEOUS, DISPERSION OF A VINYL ACETATE/ACRYLIC ACID ESTER COPOLYMER EMULSION

# **EMULSION PROPERTIES**

Type of Polymer	: Vinyl Acetate-Acrylic Acid Ester Copolymer
Solid Content (%) (for 2 hours at 105°C)	: 50 +/- 1
pH (at 25°C)	: 4 - 5
Particle Size (micron)	: 0.3 – 0.5
Viscosity (Brookfield RVT II +) (at 23 °C)	: 1500 - 5000 mpa.S (spindle:3/20 rpm)
Stabilizing System	: Anionic-Nonionic-Cellulose Derivative
Free Monomer Content (%)	:< 0.3
Density (at 20°C)	: 1.03 - 1.08 (gr/ml)
Minimum Film Forming Temperature (°C)	: +4.5 / +7.5
Film Appearance ( at 25°C )	: Clear, flexible
Glass Transition Temperature (°C)	: +12.97

## **APPLICATIONS**

- Interior & Exterior Matt, Semi-Gloss Paints
- Plasters
- Primers for Mineral Substrates

#### **FEATURES**

- Good paint stability
- Clear, flexible film.
- High pigment binding capacity

#### PROCESSING

DEMPOL VA 310 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. POL 0930) and dispersing agents (e.g. PA 40 NS) before the emulsion is added.

DEMPOL VA 310 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.

DEMPOL VA 310 exhibits good film formation at temperatures above 8°C. It is necessary to add suitable coalescing agents (e.g. Texanol or Buthyl Diglycol Acetate) in amounts of 0.6 - 1.0% 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.

Styrene Acrylic and pure acrylic emulsions may also be mixed with DEMPOL VA 310 but these mixtures generally exhibit dull films that have no technical advantages.

Eventhough DEMPOL VA 310 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 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 $(+5 / +40^{\circ}C)$ avoid freezing temperatures and sources of eat 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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