

TECHNICAL DATASHEET

DEMPOL ST 120

DEMPOL ST 120 IS AN AQUEOUS, PLASTICIZER AND APEO free. HIGH QUALITY 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 ± 1
pH (at 25°C)	: 7 - 9
Particle Size (micron)	: 0.2 – 0.5
Viscosity (Brookfield DV-II +) (at 25 °C)	: 10000 - 20000 m Pa.s (spindle:6/10rpm)
Stabilizing System	: Anionic-Nonionic
Free Monomer Content (%)	: < 0.3
Density (at 20°C)	: 1.02 - 1.06 (gr/ml)
Minimum Film Forming Temperature (°C)	: +16 / +18
Film Appearance (at 25°C)	: Clear,semi flexible,gloss
Glass Transition Temperature (°C)	: +13.64

APPLICATIONS

- Interior & Exterior Paints
- Textured Coatings
- Architectural Applications
- Plasters
- Primers for Mineral Substrates
- Silk paints , Semi-Gloss Paints and Full Glossy Paints

FEATURES

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

PROCESSING

DEMPOL ST 120 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 and dispersing agents before the emulsion is added.

DEMPOL ST 120 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 and polyurethane thickeners.

DEMPOL ST 120 exhibits good film formation at temperatures above 18°C. The unpigmented film has a tack-free surface at room temperature. It is necessary to add suitable coalescing agents (e.g. Texanol or Buthyl Diglycol Acetate) in amounts of 1 – 1.5 % 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 flexible film is required for special applications. It is possible to mix DEMPOL ST 120 with softer polymer dispersions styrene-acrylic emulsion DEMPOL ST 131 N which yield clear films are generally used. Vinyl Acrylic and pure acrylic emulsions may also be mixed with DEMPOL ST 120 but these mixtures generally exhibit dull films that have no technical advantages.

Eventhough DEMPOL ST 120 is protected from microorganisms. It is required to add antibacterial agents to the finished products to ensure good storage stability.

SAFETY

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| 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°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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