

# TECHNICAL DATASHEET

## DEMPOL ST 470 N

### **AQUEOUS, ANIONIC, PLASTICIZER-FREE DISPERSION OF AN ACRYLIC-STYRENE COPOLYMER**

DEMPOL ST 470 N IS AN AQUEOUS COPOLYMER EMULSION STYRENE AND ACRYLIC ACID ESTER. IT IS A BINDER FOR CEMENTITIOUS & MORTAR MIXTURES, FOR CEMENT MODIFICATIONS  
**APEO free - SVHC free.**

### EMULSION PROPERTIES

Type of Polymer	: Styrene-Acrylic Acid Ester Copolymer
Solid Content (%)	: 57 ± 1
pH (at 25°C)	: 6 - 8
Average Particle Size (µm) approx.	: 0.32
Viscosity (Brookfield DV-II +) (at 25 °C)	: < 1700 mPa.S (spindle:6/10 rpm)
Stabilizing System	: Anionic
Free Monomer Content (%)	: < 0.3
Density (at 20°C)	: 1.02 - 1.06 (gr/ml)
Minimum Film Forming Temperature (°C)	: -3 (± 1)
Film Appearance (at 25°C )	: Clear, very flexible, tacky

## INTRODUCTION

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Dempol ST 470 N is an aqueous, anionic, plasticizer-free dispersion of an acrylic-styrene copolymer. The high binding power of this dispersion allows the formulator to produce cost-effective cement mortars without compromising. Our styrene acrylic based emulsions also provide environmental benefits derived from their low odor formulating characteristics. Dempol ST 470 N gives more fluidity to your mortar for more precise molding and excellent forming.

Performance advantages include excellent flexibility, water resistance and durability. It exhibits good resistance to mechanical processes such as pumping, mixing and grinding. The emulsion solids, viscosity, Tg value, minimum film forming temperature and particle size distribution are critical variables for emulsion selection. It can handle more material filling and fullness of the mortar will be much more effective. This improved product has no capillary action when dried. Since it tends to form a skin on exposure to air, opened drums must be properly resealed after product has been removed.

Dempol ST 470 N is easily usable Styrene Acrylic Copolymer with cement mortars for all types of surface applications.

## APPLICATION

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Dempol ST 470 N is used in manufacturing flexible, water-proof adhesive mortars and flexible insulating coatings. It is also recommended for flexible coating of flat roofs. It contains some special additives permitting it to have an excellent wetting property and to be loaded with more amounts of filler.

Dempol ST 470 N is compatible with other nonionic and anionic dispersions. It has good resistance to aging as well as to light. We can suggest you to use fine sand as filler. In order to improve the compatibility with pigments, sodium polyphosphate can be added.

It is advisable to include a little amount of preserving agent into finished product in order to keep it for a longer storing time. Preliminary trials should always be carried out to test the compatibility and efficiency of the preservatives to be used. The same procedure should be taken into account if a defoamer is added.

We design polymers to provide strength, add durability, resist water and solvents, add firmness or softness, improve flexibility or increase dimensional stability.

## **RECOMMENDED RECIPE**

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### **RECIPE -1**

Cement / Sand / DEMPOL SB 470 N ..... % 33 / % 33 / % 33

Or

### **RECIPE – 2 %**

WATER..... : 14.3

POWDER(Cement/ Sand and etc.)..... : 71.4

DEMPOL SB 470 N..... : 14.3

## **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**

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**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.

### **DEMPOL CHEMICAL CO.LTD**

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