

VARAPLAST NC SET ACCELERATION FOR CONCRETE & MORTAR

DESCRIPTION

VARAPLAST NC is a chloride free, water reducing, set acceleration admixture based on selected synthetic polymers. It is supplied as a water white to light brown solution which is instantly dispersible in water.

USES

SETTING TIME & STRENGTH

The addition of **VARAPLAST NC** in the recommended amounts will reduce the initial setting time of concrete by 40 to 60 % and the final setting time proportionally. As a result the time to finishing will be substantially reduced.

By increasing the rate of hydration of the cement, **VARAPLAST NC** increases the rate of strength development of cement mixes. For example it is not uncommon to obtain normal 3 day strengths in 1 day or normal 7 day strengths in 3 days.

A variable dosage is given for **VARAPLAST NC** when used in concrete in order to compensate for differences in materials and mix designs throughout the world and variable winter temperatures. Previous experience in a particular area will help optimizing the proper dosage.

COLD WEATHER CONCRETE

VARAPLAST NC is not intended to prevent concrete from freezing. However, **VARAPLAST NC** makes cold weather concreting easier and safer. Concrete can be finished earlier and the time required for protection against freezing may be substantially reduced. This includes earlier removal of forms with resulting job economy.

ADVANTAGES

- ◆ Improves workability.
- ◆ Counteracts set-retarding effects of cold weather.
- ◆ Speeds setting time as much as 40%.
- ◆ Provides high early strength.
- ◆ Permits earlier finishing.

- ◆ Permits earlier removal of forms.
- ◆ Cuts concrete costs.
- ◆ Chloride free. Safe in reinforced concrete.

STANDARDS

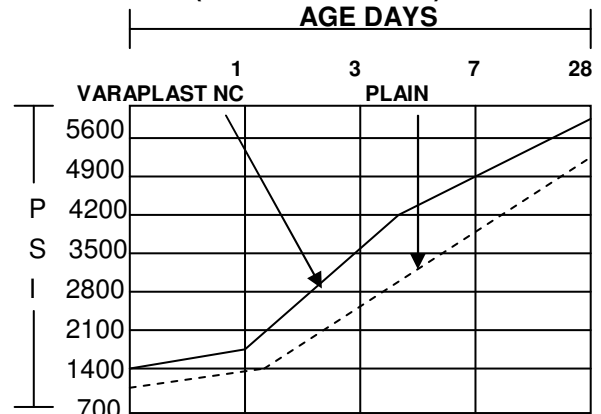
VARAPLAST NC complies with **BS 5075 - 1982**, and **ASTM C494 Type C**.

TYPICAL PROPERTIES

- ◆ **Calcium Chloride Content** : Nil.
- ◆ **Specific Gravity** : 1.10 @ 20° C.
- ◆ **Chloride Content** : Nil to **BS 5075**.
- ◆ **Setting Time** :

Initial Set - Plain Cement	3 hours 20 minutes
Initial Set - VARAPLAST NC	1 hour 15 minutes
Final Set - Plain Cement	5 hours 40 minutes
Final Set - VARAPLAST NC	2 hours 25 minutes

COMPRESSIVE STRENGTHS
(2" X 2" X 2" cubes)



- ◆ **Cement Compatibility** : Compatibility with sulphate resisting and other portland cements, high alumina cements and cement replacement materials such as **PFA, GGBFS Microsilica**.

- ◆ **Compatibility** : **VARAPLAST NC** is generally compatible with other **AKARSH** admixtures, but it is recommended that all admixtures be added to concrete separately.

INSTRUCTIONS FOR USE

Dosage : The optimum dosage for **VARAPLAST NC** should be determined by site trials with actual site conditions.

As a guide the dosage is normally :

0.5 to 2.5 litres./ 50 kg. cementitious material.

Overdosing : The actual dosage can be decided by laboratory trials and will vary as per the cement type, temperature and prevalent ambient conditions. Any dosage above the required dosage will result in early loss of workability and must be avoided.

TECHNICAL SUPPORT

AKARSH provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the technical Department in these cases.

CURING

As with all structural concrete, normal curing methods apply.

CLEANING

Spillages of **VARAPLAST NC** can be removed with water.

PACKAGING

VARAPLAST NC is supplied in 200 kg. drums.

STORAGE

VARAPLAST NC should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **VARAPLAST NC** has a minimum shelf life of 12 months provided temperature is kept within the range of 5° C to 30° C.

PRECAUTIONS

HEALTH & SAFETY

VARAPLAST NC is non-toxic. Any splashes to the eyes should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire : **VARAPLAST NC** is non flammable.