

# NEUTROL 500

## *Mid-Range Hyperplasticiser based on Polycarboxylic technology*

**NEUTROL 500** is differentiated from the conventional type hyperplasticisers in that it is based on a unique polycarboxylic ether polymer with lateral chains. This greatly improves the cement dispersion. At the starting of the mixing process an electrostatic dispersion occurs, but the presence of the lateral chains, linked to the polymer backbone, generates a stearic hindrance which stabilizes the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete.

### Uses

**NEUTROL 500** is a high performance mid-range hyperplasticiser intended for applications where increased workability retention is of prime importance and it has been developed for use in

- Concrete made with GGBS
- Self compacting concrete
- Ready mix concrete
- Pumped concrete
- Concrete required long workability retention
- High performance concrete

### Benefits

- Suitable for hot weather conditions
- Increased early and ultimate compressive strengths
- Increased flexural strength
- Higher E modulus
- Improved adhesion to reinforcing and pre-stressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

### Technical Support

Thermax provides a technical advisory service for onsite assistance and advice on mix design, admixture selection and evaluation trials and dispensing equipment.

### Properties

Specific Gravity	1.070 -1.11 @ 27°C
Appearance	Hazy yellow amber colored liquid
pH	6.0- 8.0

Solid content	26-30%
Chloride content	0.00 - 0.100 %
Viscosity	5-50 cps

### Dosage

The optimum dosage of Neutrol 500 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. As a general guideline the dosage ranges shall vary from 0.5 to 3.0 lit / 100 kg cementitious material.

### Test Parameters

ASTM C 494 Type G  
EN934-2-T 3.1/3.2  
IS9103:1999  
IS2645:2003

### Use at other dosages

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Thermax office can be contacted for advice in these cases.

### Effects of overdosing

Overdosage may cause delay in the setting time.

### Instructions for use

#### Compatibility

Neutrol 500 should not be used in conjunction with any other admixture unless prior approval is obtained from the local Thermax office.

Neutrol 500 is suitable for use with all types of Portland cements and cement replacement materials such as PFA, GGBFS, SRC and microsilica.

#### Mixing

Neutrol 500 is ready to use liquid which is dispensed into the concrete together with mixing water. The plasticizing effect and water reduction are higher if admixture is added to the damp concrete after 60-80% of the mixing water has been added. The addition of Neutrol 500 to dry aggregate and cement is not recommended.

In some instances, e.g. addition to ready mix concrete on the site, Neutrol 500 can be added directly in the truck mixer and mixed at maximum speed for an extra 5 minutes.

## Application

The means of application of the concrete must be such that the concrete is not poured from a great height into moulds and form work. The use of a sleeve or forced filling is strongly advised and recommended.

## Health and safety instructions

Neutrol 500 does not fall into hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately- do not induce vomiting.

For further information consult the Material Safety Data sheet available for this product.

## Fire

Neutrol 500 is water based and non flammable.

## Cleaning and disposal

Spillages of Neutrol 500 should be absorbed onto sand, earth or vermiculite and transferred to suitable plastic containers. Remnants should be hosed down with the large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

## Storage

Neutrol 500 has a minimum shelf of 12 months provided the temperature is kept within the range of 5°C to 50°C. If the temperature of the product falls outside this range then please contact local Thermax office for advice.

## Packing

Neutrol 500 is available in 250kg barrel and 20ltr.

## Other segments :

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation • Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives
- Cement Grinding Aids

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