

NOVA VMX 100

Viscosity Modifying Admixture for Self-compacting Concrete

Description

Nova VMX 100 is a premier, ready-to-use, liquid, organic, viscosity-modifying admixture (VMA) specially developed for producing concrete with enhanced viscosity and controlled rheological properties. Concrete containing **Nova VMX 100** admixture exhibits superior stability and controlled bleeding characteristics, thus increasing resistance to segregation and facilitating placement.

The new technology of self-compacting concrete allows concrete to be compacted without vibration, even with strongly reinforced structures. A self-compacting mix should have a high workability and viscosity.

The fluidity of the mix is guaranteed provided there is no friction between the internal particles and the concrete can flow freely; segregation occurs when the components of the concrete separate out into mortar and large aggregates.

Using **Nova VMX 100** in self-compacting concrete helps to reach the right balance between fluidity and resistance to segregation which are apparently opposing properties.

Recommended

- ✓ Self-compacting concrete
- ✓ Concrete containing gap-graded aggregates
- ✓ Lean concrete mixtures
- ✓ Concrete containing manufactured sand
- ✓ Underwater concrete or anti-washout admixture

Advantages

- ✓ Increased viscosity and thixotropic properties
- ✓ Improved stability during transport and placing
- ✓ Controlled bleeding
- ✓ Reduced segregation, even with highly fluid mix
- ✓ Enhanced pumping and finishing
- ✓ Reduced sagging – dimensional stability
- ✓ Enables flexibility in mixture proportioning.
- ✓ Improved thixotropy for underwater applications or anti-washout admixture

Technical Properties

Appearance	Clear free-flowing liquid
Relative density @ 25°C	1.01 ± 0.01
pH	≥ 6
Chloride content [%]	< 0.2

Standards

Nova VMX 100 complies with EFNARC-VMA guidelines 2006.

Application

Nova VMX 100 is a ready-to-use liquid admixture, which should be added to the concrete after all the other components of the mix. This is particularly important in order to obtain maximum efficacy.

For best performance it is advisable to continue mixing until the mix is completely homogeneous. To produce self-compacting concrete, **Nova VMX 100** should be used in combination with the other superplasticiser admixtures of the Novamix range in order to guarantee maximum efficacy.

A slight decrease in slump or slump flow may be noted after the addition of **Nova VMX 100** admixture due to the increase in concrete viscosity. If necessary, the slight decrease in slump or slump flow can be offset easily by a minor increase in superplasticiser dosage. Also, because of its thixotropic properties, concrete containing **Nova VMX 100** admixture may stiffen if left in a mixing vessel or truck without agitation.

Workability can be restored by simply remixing the concrete mixture. **Nova VMX 100** admixture has little to no effect on concrete setting time, sump retention, air content and compressive strength within the recommended dosage rate.

Dosage

Nova VMX 100 is dosed at the rate of 50 mL to 1000 mL/100 kg of cementitious material. Other dosages may be recommended in special cases according to specific job site conditions and appropriate lab trials are recommended.

Compatibility

Nova VMX 100 is compatible with all types of cement. However, it is incompatible with sulphonate-based superplasticiser admixtures.

Packaging

200 kg HDPE barrels and in bulk tankers on request.

Shelf life

12 months from the date of manufacturing when store under recommended storage conditions.

Nova VMX 100 must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurised air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult our CCI representative.

Safety & Precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin, and foodstuffs (which can also be tainted with vapour until product fully cured or dried).

Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention.

Keep away from children and animals. Reseal containers after use.

Do not reuse containers for the storage of consumable items.

Before use, refer to the Material Safety Data Sheet (MSDS). The MSDS is available on www.ccichemicals.in or contact us at info@ccichemicals.in.

Registered Office	Regional Office	Chennai Plant	Mumbai Plant
Office No. 210 Shah Heritage Commercial CHS Plot No. 9, Sector 48, Seawood Navi Mumbai – 400 706 Maharashtra, India Mobile: +91 93247 27785 E-mail: kashinath.bera@ccichemicals.in	'LAKSHMAN MANERE' Old No. 17/2, New No. 42/2, R Block 6 th Main Road, Anna Nagar West Chennai – 600 040 Tamilnadu, India Mobile: +91 98400 73183 E-mail: durai.murugan@ccichemicals.in	No. 1, Perumal Koil Street Azhinjivakkam Sriperumpudhur Thiruvallur – 602 105 Tamilnadu, India	Plot No. A-51 Taloja Industrial Area MIDC, Taloja Navi Mumbai – 410 208 Maharashtra, India