

PRODUCT DATA SHEET

Sika® ViscoCrete®-3744 Ease

POLY ARYL ETHER BASED SUPERPLASTICIZER FOR THE PRODUCTION OF HIGH QUALITY CONCRETE

DESCRIPTION

Sika® ViscoCrete®-3744 Ease is an innovative latest generation superplasticizer based on Poly Aryl Ether (PAE) polymers, and is specially engineered for ready mix concrete and self compacting concrete. Sika® ViscoCrete®-3744 Ease is formulated from unique polymers produced in house by Sika. The objective of the development of PAE polymer was to take the characteristics of traditional polycarboxylic ether (PCE) admixtures but to modify the structure of the polymer to give enhanced rheology and robustness to the concrete. The PAE polymers contained in the formulation of Sika® ViscoCrete®-3744 Ease ensure that enhanced rheology is maintained from time of mixing until the time of placing and finishing at job site. Sika® ViscoCrete®-3744 Ease is suitable for use in hot and tropical climatic conditions.

USES

Sika® ViscoCrete®-3744 Ease is used for the production of high quality ready mix concrete and self compacting concrete. It is suitable for the production of normal slump concrete (150 mm \pm 40 mm) to a high slump concrete (200 mm \pm 40 mm).

FEATURES

For the Ready-mix Producer:

- Capability of delivering high performance concrete with enhanced rheology, strength and workability
- Concrete is easier to pump reducing pumping time and pumping pressure of equipment thus to reduce the wear-and-tear
- Concrete is easier to place and finish
- Enhanced rheology is maintained from time of mixing to time of placement

For the Contractor/Applicator:

- Easier to place the concrete and improved strength development
- Improved concrete surface appearance Cost-effective self-compacting concrete can be obtained by using Sika® ViscoCrete®-3744 Ease along with Sika® Stabilizer in the concrete mix. The resultant Smart Dynamic Concrete (SDC) also has a lower carbon foot print, reduced shrinkage and lower heatof hydration than traditional Self Consolidating Concrete (SCC)

For the Engineer:

- Concrete meets the specification requirements
- High quality durable concrete

CERTIFICATES AND TEST REPORTS

Sika® ViscoCrete®-3744 Ease follows the requirements of ASTM C494; Type F&G and BS EN 934-2

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates, co-polymers
Packaging	210 L drum, 1000 L flowbin or bulk supply in tanker
Appearance and colour	Clear to light brown colored liquid
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditionat temperatures between +5°C and +45°C. Protect from direct sunlight. Mix well before use.
Density	~1.10 kg/l (+25 °C)
pH-Value	3-7
Total chloride ion content	Nil (BS EN 934

Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using Sika® ViscoCrete®-3744 Ease in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrink-
	age. Use Sika® Antisol® products as a curing agent or apply wet hessian.

APPLICATION INFORMATION

Recommended dosage	0.4 to 2.5 L per 100 kg of total binder. Trial mixes must be performed to establish the exact dosage rate as per project requirements.
Dispensing	Sika® ViscoCrete®-3744 Ease is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if Sika® ViscoCrete®-3744 Ease is poured into the concrete mix right after the addition of the first 80% of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.
Compatibility	Sika® ViscoCrete®-3744 Ease is suitable for mixes containing all types of cementnand supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (Ground Granulated Blast Furnace Slag) and the following Sika products: SikaPump® Sika® FerroGard® SikaFume® SikaFiber® SikaFiber® Sika® Stabilizer Sika® Stabilizer SikaControl® We recommend to perform trial mixes to establish the required performance when combining Sika® ViscoCrete®-3744 Ease with the above products or other admixtures. Please consult our Sika Technical Department for further assistance.



BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

When using Sika® ViscoCrete®-3744 Ease a mix design must be selected for the local material sources used and trial mixes performed to verify suitability. If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing. Sika® ViscoCrete®-3744 Ease should not be added to dry cement. Before pouring, suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured. In case the setting time of concrete is extended, if cured properly. other properties may not be affected and higher ultimate strength may be achieved. Sika® ViscoCrete® products are not compatible with admixtures based on sulfonated napthalene or melamine. When accidental overdosage occurs, bleeding and segregation of the concrete and retardation of intial set may be ob-

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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ISO 9501, 14001, 45001 – 565:
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-58a International Chemicals LIC
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-58a Card 9.5.C. ©
650 9501, 14001 – 565:
650 9501, 14001 – 100:
-58a Commission Chemicals LIC
-58a LOS 14001 – 100:
-58a LOS 14001 –

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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