

PRODUCT DATA SHEET

SikaRapid® AC 555

(formerly MasterSet® AC 555)

Set accelerating admixture for concrete

DESCRIPTION

SikaRapid® AC 555 is a ready to use liquid admixture formulated to accelerate setting time and to produce high early strength in special application concretes. Suitable for use in hot and tropical climatic conditions.

USES

- Precast concrete.
- Pre-stressed concrete (either pre-tensioned or post-tensioned)
- Concrete repairs where early service is required.
- For addition to stabilised long haul concrete where SikaTard® HCA 10 is used.
- As an Antifreeze admixture for cold weather concreting.

FEATURES

The compressive and the flexural strengths of concrete containing SikaRapid® AC 555 accelerating admixture will develop more rapidly compared to plain concrete. Benefits to concrete construction and to the manufacture of concrete products because of the increase in early strengths are as follows:

- Earlier stripping and re-use of forms for walls and pre-cast work
- Earlier structural use of concrete, as in liftslab construction, tilt-up, paving and floors.
- Earlier tensioning in post-tensioned concrete
- Earlier de-tensioning in pre-stressed concrete
- Potential energy savings in accelerated steam-cured applications (pre-stressed/precast) by reducing curing temperatures and/or the curing time necessary to reach the desired strengths
- Offsetting the set retardation of stabilised concrete
- SikaRapid® AC 555 will not initiate or promote corrosion of steel embedded in concrete.

PRODUCT INFORMATION

Packaging	Drums, 1,000 L flowbin or in bulk
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +50°C.
Appearance and colour	Clear to whitish liquid
Density	~1.37 kg/l (+25°C)
Total chloride ion content	Nil (EN 934)

TECHNICAL INFORMATION

Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using SikaRapid® AC 555 in concrete. Refer to relevant standards.

Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.

APPLICATION INFORMATION

Recommended dosage

0.5–3.0 % by weight of binder

Other dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements.

Trial mixes must be performed to establish the exact dosage rate required.

Dispensing

SikaRapid® AC 555 is a ready-to-use admixture to be added to the concrete as a separate component. SikaRapid® AC 555 should not be pre-mixed with other admixtures.

Compatibility

SikaRapid® AC 555 is suitable for mixes containing all types of cement and supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (Ground Granulated Blast Furnace Slag).

SikaRapid® AC 555 can be used with airentaining admixtures. This admixture can also be used in conjunction with other Sika admixtures to achieve cost-effective, customised concrete performance.

We recommend to perform trial mixes to establish the required performance when combining SikaRapid® AC 555 with other admixtures. Please consult our Sika Technical Department.

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.
- Internal Reference - Version: MBS_CC-UAE/Set_AC555_01_07/v3/11_17

FURTHER INFORMATION

Particularly beneficial in cold weather, reduction in setting time allows for the earlier finishing of concrete. This can result in substantial time and money savings in construction through better scheduling, fewer cold weather delays, faster construction and earlier occupancy.

IMPORTANT CONSIDERATIONS

- When using SikaRapid® AC 555 a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.
- SikaRapid® AC 555 should not be added to dry cement.

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 9001, 14001, 45001 – SGS
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ISO 9001, 14001 – SGS
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ISO 9001, 14001 – TÜV
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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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