

PRODUCT DATA SHEET

Sika® Plastiment® R 55

(formerly MasterPozzolith® R 55)

Set retarding admixture with water reducing/plasticising capability

DESCRIPTION

Sika® Plastiment® R 55 is a powerful retarder and auxiliary plasticiser which disperses and deflocculates cement particles whilst delaying the hydration process, thereby retarding the initial and final set. It can be used to improve workability without the addition of extra water, or to allow reductions in the free water content in conjunction with high range water reducing agents.

USES

Sika® Plastiment® R 55 is used for:

- For extended workability retention of high strength, low W/C ratio mixes.
- Hot weather concrete where control of initial and final set is important.
- White cement concrete
- Slip formed concrete
- Self-compacting concrete in hot weather conditions - as retarding component in the mix

PRODUCT INFORMATION

Packaging	20kg & 235kg drum
Shelf life	12 months from date of production
Storage conditions	Frost: If frozen or if precipitation has occurred, the Product may be used after thawing slowly at room temperature and intensive mixing. The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Protect from direct sunlight and frost. Always refer to the packaging.
Appearance / Colour	Clear/pale straw free flowing liquid
Density	1.15± 0.02 at 250C
pH-value	≥ 6

TECHNICAL INFORMATION

CHARACTERISTICS / ADVANTAGES

- Increases density of concrete reducing permeability and thus increasing durability.
- Allows a reduction in free water.
- Highly effective in high cement content low water cement ratio mixes where its use enables concrete to be made more workable without loss in strength, density and durability.
- Enables controlled extension of initial set.
- The retarding action allows continuous concrete pours to be made, thus reducing the number of construction joints needed.

APPROVALS / STANDARDS

Conforms to IS 9103 / ASTM C494 Type B,D

Concreting Guidance

- Follow the standard rules of good concreting practice for both production and placement.
- Carry out laboratory trials before concreting on site, especially when using a new mix design or producing new concrete components.
- Carry out trials to confirm the flowability and workability of the concrete.
- Cure fresh concrete properly and apply curing as early as possible, particularly in hot, windy and dry conditions, as well as at low temperatures.

Specific Advice

- Excessive water addition or overdosing may cause bleeding, segregation and extension of setting-times.
 - Due allowance should be made for the effect of fluid concrete pressure on formwork, and stripping times should be monitored.
 - The product ensures that the concrete remains workable for a certain period. Workability loss depends on the following aspects:
 - temperature,
 - type of cement,
 - nature of aggregates,
 - method of transport,
 - and initial workability.
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SYSTEM INFORMATION

Compatibility

Sika® Plastiment® R 55 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers.

Sika® Plastiment® R 55 is also compatible with slag and pozzolans such as fly ash and silica fume.

APPLICATION INFORMATION

Recommended Dosage

As a guide to these trials, a dosage range of 100ml to 500ml per 100kg of cementitious material is recommended as a starting point.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions.

Note: Preliminary laboratory trials are always recommended to determine the optimum consumption and injection parameters.

Contact Sika Technical Services for additional information.

Dispensing

Sika® Plastiment® R 55 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of Sika® Plastiment® R 55 to dry aggregate or cement is not recommended.

BASIS OF PRODUCT DATA

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

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.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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Product Data Sheet

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