

**BUILDING TRUST** 

## PRODUCT DATA SHEET

# SikaRapid<sup>®</sup> STE 56 Seed

(formerly Master X-Seed<sup>®</sup> STE 56)

#### STRENGTH-ENHANCING ADMIXTURE FOR CAST CONCRETE AND DRY CAST CONCRETE

### DESCRIPTION

SikaRapid<sup>®</sup> STE 56 Seed is a patent-pending, strength enhancing admixture that improves both early and late-age strength development in concrete, while supporting sustainable construction. SikaRapid<sup>®</sup> STE 56 Seed admixture is based on a unique technology that facilitates improved cement hydration, thus enhancing strength development.

SikaRapid<sup>®</sup> STE 56 Seed admixture will meet ASTM C494/C494M requirements for Type S, Specific Performance, admixtures. The strength-enhancing property of SikaRapid<sup>®</sup> STE 56 Seed permits a reduction in the total cementitious materials content of a given concrete mixture while maintaining compressive strength development equivalent to that of reference concrete, with associated benefits in CO<sub>2</sub> emissions reduction. SikaRapid® STE 56 Seed admixture is based on a Sika proprietary technology that ensures a stable suspension of synthetically-produced crystalline CSH nanoparticles. These particles act as active seeds in a concrete mixture to facilitate the growth of active crystals between cement particles. The unique technology of SikaRapid<sup>®</sup> STE 56 Seed admixture provides an unmatched improvement of the hydration process in a concrete matrix which increase early-and late-age strength development compared to a reference untreated concrete mixture.

#### USES

- Low carbon emission concrete
- Ready-mixed concrete
- Prestressed concrete
- Precast concrete
- Dry cast concrete
- Semi dry concrete
- Self-consolidating concrete (SCC)

#### **FEATURES**

- Improves cement hydration
- Increases strength development both early (1-day) and late-age (28-day)
- Enhances workability of high-performance concrete mixtures
- Provides a strength safety factor and/or expand-ed performance space
- Reduces in-place concrete costs when utilized in optimized concrete mixtures
- Permits higher replacement levels of supplementary cementitious materials (SCMs)
- Permits earlier stripping and reuse of forms
- Enhances the appearance of concrete surface
- Helps reduce CO<sub>2</sub> emissions associated with concrete

Packaging	205 L drum 1 000 L IBC
Shelf life	12 months from date of production if stored properly in undamaged, un- opened, original sealed packaging.
Storage conditions	Store in dry conditions at temperatures between +5 °C and +35 °C. Pro- tect from direct sunlight and frost.
Appearance	Liquid

### **PRODUCT INFORMATION**

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### **TECHNICAL INFORMATION**

Concreting guidance	The standard rules of good concreting practice, concerning production and
	placing, are to be followed.
	Laboratory trials before concreting on site are strongly recommended
	when using a new mix design or producing new concrete components.
	Fresh concrete must be cured properly and as early as possible.
APPLICATION INFORM	ATION
Recommended dosage	0.25 – 1.00 liter per 100 kg of cementitious.
	Other dosages may also be used depending on the specific working condi-
	tions. Trial mixes should be made with job materials to determine the op-
	timum dosage required for a specified job requirement.
Compatibility	SikaRapid <sup>®</sup> STE 56 Seed may be combined with the following products:
	<ul> <li>Sika<sup>®</sup> Viscocrete<sup>®</sup></li> </ul>
	<ul> <li>Sika Viscoflow<sup>®</sup></li> </ul>
	<ul> <li>SikaFume<sup>®</sup></li> </ul>
	<ul> <li>SikaFiber<sup>®</sup></li> </ul>
	<ul> <li>Sika<sup>®</sup> Stabilizer</li> </ul>
	Do not use viscocrete / viscoflow series combined with sikament series.
	To produce flowing and / or self-compacting concrete, special concrete
	mix design is required. Pre-trials are recommended and mandatory if com-
	binations with the above products are required.
	Please consult to our Technical Service 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.

## 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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