

Construction



Sika[®] Technology and Concepts for the Production of Concrete

Sika[®]

Sika® – Market and Technology Leader through continuous Innovation

Sika – A History of Innovative Achievement in Concrete Technology

Lignosulphonate	Gluconate	Naphthalene	Melamine	Vinyl Copolymer	Polycarboxylate
1930's	1940's	1970's	1980's	1990's	2000
Sika® Plastocrete® Plasticizing and up to 10% water or cement reduction	Sika® Plastiment® Plasticizing with controlled retardation and up to 10% water or cement reduction	Sikament®-N Superplasticizing with up to 20% water or cement reduction	Sikament®-FF Superplasticizing with lower air content and up to 20% water or cement reduction	Sikament®-10/ES Superplasticizing with low air, extended slump and up to 30% water or cement reduction	Sika® ViscoCrete® Ultraplasticizing, low air, extended slump and up to 40% water or cement reduction. Allowing the development of Self Compacting Concrete (SCC).

Sika was founded in 1910 producing admixtures for concrete and mortar. These were initially to make them waterproof, accelerate their setting or increase their strength.

Sika concrete technologists have always understood that the two most important functions of “water” in producing quality concrete

are almost diametrically opposed (i.e. a high water demand to achieve workability for optimum placing and compaction VERSUS a low water demand for optimum strengths and durability!). Therefore Sika has always been at the forefront with technological advances in chemical admixtures to achieve BOTH of these requirements, together at the same time, and practically on the job site!

Sika® – for “State of the Art” Concrete Technology



Self Compacting Concrete (SCC)

Sika Technology for

- High performance and cost efficiency
- For congested reinforcement and minimal dimensions
- Reduction in noise (no vibration)
- Reduced health hazard (vibration syndrome)

Products

- **Sika® ViscoCrete® Range**
Latest SCC flow control

Durable, High Performance Concrete

Sika Technology for

- High impermeability
- High frost and freeze/thaw resistance
- Increased chemical resistance
- High flexural and compressive strengths

Products

- **Sikament® Range**
Increased strength and watertightness
- **Sika® ViscoCrete® Range**
Highest water reduction possibilities
- **Fro-V5-A Range**
Defined air entraining

Pumped Concrete

Sika Technology for

- Reduced water requirements
- Optimum pumping and placement performance
- Lower pump pressures
- Reduced wear on pumping equipment

Products

- **Sikament® Range**
Increased strength and impermeability
- **Sika® ViscoCrete® Range**
Guaranteed workability and pumpability
- **SikaPump® Range**
Easy pumping even with difficult aggregates



Special Concretes ■ Lightweight Con



Commercial Benefits for Sika Customers

■ Plasticizing and improved Workability	Faster and easier placing and compaction
■ SCC Technology	Reduced labour costs and time saving
■ Durability	Longer service life of the structure
■ Water Reduction	Reduced cement costs and improved quality
■ Pumpability	Faster placing and better compaction
■ High Early Strength	Faster demoulding, faster construction
■ Watertight Construction	Watertight concrete and joints
■ Frost and Freeze / Thaw Resistance	Improved durability and reduced damage
■ Retarded Concrete	Extended workability at high temperatures and for larger concrete pours
■ Reduction of Rebound	Cost optimization of shotcrete



High Early Strength Concrete

Sika Technology for

- High performance precast concrete
- Very high early strength development (in a few hours)
- Early formwork striking
- Fasttrack construction

Products

- **Sika® ViscoCrete® Range**
High performance concrete and SCC
- **Sikament® Range**
High water reduction with increased strength development
- **SikaRapid® Technology**
Setting and hardening acceleration and control



Sprayed Concrete

Sika Technology for

- Rebound reduction
- Increased cohesion and adhesion
- Optimum early and final strength

Products

- **Sika® ViscoCrete® Range**
Water reduction and increase in strength
- **SikaTard® Range**
Retarding stabilizers
- **Sigunite® AF Range**
Alkali-free accelerators



Concrete Essentials

Sika Technology and Products for

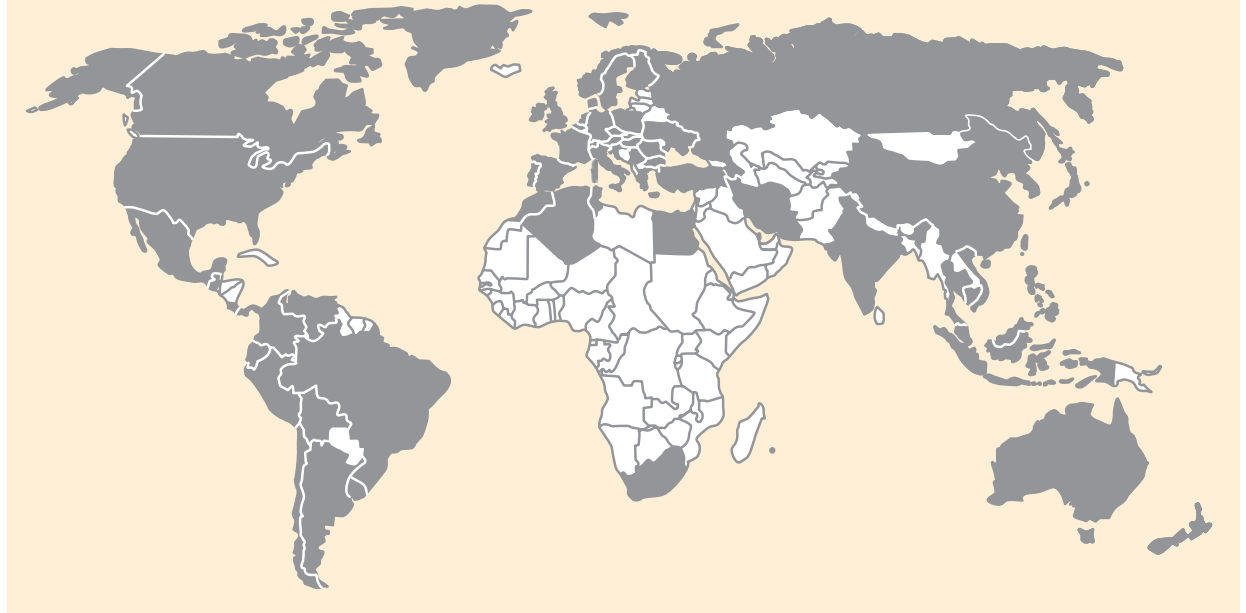
- Formwork release agents
Sika® Separol® Range
- Curing compounds
Sika® Antisol® Range
- Surface retarding
Sika® Rugasol® Range
- Equipment protection
Sika® Mixer Protection

Sika® Technology and Concepts for the Production of Concrete

Sika – Your Local Partner with a Global Presence

Sika is a multinational company in the speciality and construction chemicals business. It has subsidiary manufacturing, sales and technical support facilities in over 70 countries around the world. Sika is THE global market and technology leader in the water-proofing, sealing, bonding, damping, strengthening and protection of buildings and civil engineering structures.

Sika has more than 8'700 employees in these subsidiary companies' facilities that are therefore ideally positioned to support the success of our partners – both our suppliers and our customers.



Also available from Sika



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Your local Sika Company

Our most current General Sales Conditions shall apply. Please consult the Product Data Sheet prior to any use and processing.

