At a glance

Our World of Construction Chemicals Where visions become reality Your Interfacial Chemistry Experts **Process and Performance Additives** AirVoid Protection Curing Release Management



Defoamers

Water repellents

Management



Shrinkagereducing agents



Release agents

Formulation Management



Wetting agents Dispersing agents **Emulsifiers Defoaming agents**

SITREN°, SITREN AirVoid® and TEGOSIVIN®

All five management systems and their associated activities and products address the three following areas of application:

- **Drymix**, additives for the dry mortar industry
- Admixtures, additives for concrete
- Industrial building materials, additives for e.g. insulating materials and fillers

We understand our customers' challenges, including the requirements their products have to meet, and their manufacturing processes. In addition, we offer a broad product portfolio, extensive experience and specialized technical expertise, plus our in-depth knowledge of applications and markets.

At the same time, we are dedicated to protecting the environment, and to sustainable socioeconomic development. With more than thirty years' experience in product design, we continuously improve and evolve our products. As a result, our solutions set new standards in terms of efficiency and performance.

mendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to

its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. **EVONIK EXPRESSLY DISCLAIMS** ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCU-RACY, COMPLETENESS,

This information and any recom-

NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR **PURPOSE (EVEN IF EVONIK IS** AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOM-MENDATIONS PROVIDED.

Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

Europe | Middle East | Africa

www.evonik.com/

construction-chemicals

EVONIK OPERATIONS GMBH Goldschmidtstr. 100 45127 Essen Germany

PHONE +49 201 173-2665 **FAX** +49 201 173-1990 www.evonik.com

Asia | Pacific

EVONIK SPECIALTY CHEMICALS CO., LTD. 55, Chundong Road Xinzhuang Industry Park Shanghai, 201108 PR China

PHONE +86 21 6119-1125 **FAX** +86 21 6119-1406

The Americas

EVONIK CORPORATION P.O. Box 34628 Richmond, VA 23234 USA

PHONE +1 804 727-0700 FAX +1 804 727-0855



INCLUDING APPLICATION

SITREN® SITREN AirVoid® **TEGOSIVIN®**







		AIR VOID MANA GEMENT										
	DEFOAMER											
	SITREN AirVoid° 301	SITREN AirVoid° 305	SITREN AirVoid® 307	SITREN AirVoid® 312	SITE	REN AirVoid° 320	SITREN AirVoid° 321	SITREN AirVoid° 322	SITREN AirVoid® 325			
CHEMICAL NATURE	NONIONIC SURFACTANT	NONIONIC SURFACTANT	EMULSION OF ORGANOMODIFIED SILOXANES	NONIONIC SURFACTANT		IONIONIC RFACTANT	NONIONIC SURFACTANT	NONIONIC SURFACTANT	NONIONIC SURFACTANT			
SOLID CONTEN	100%	100%	20%	100%		100%	100%	100%	100%			
DOSAGE	0.1–1.0 % by weight of superplasticizer	0.1 – 1.0 % by weight of superplasticizer	0.1–1.0 % by weight of superplasticizer	0.1–1.0 % by weight of superplasticizer	b	0.1–1.0 % y weight of perplasticizer	0.1-1.0 % by weight of superplasticizer	0.1 – 1.0 % by weight of superplasticizer	0.1–1.0 % by weight of superplasticizer			
PRODUCT PROPERTIES							+ suitable ++ good	+++ very good ++++ op	timal +++++ excellent			
Air entrainment					1							
Workability	++	++	+	++		++	++	++	+			
Defoaming properties	+++	+++++	++	+++		+++	+++	++++	+++++			
Compatibility	++++	++	++	++++		++++	++++	+++	++			
Surface appearance	++++	+++++	+++	++++		++++	++++	+++	+++			
Dispersing effect	+++	+++	++	++++		++++	++++	+++	+++			
Wettability	++++	++++	+	++++		++++	++++	++++	++++			
Improvement of mechanical properties	+++++	+++++	+++	+++++		+++++	+++++	+++++	+++++			
Durability	+++++	+++++	++++	+++++		+++++	+++++	++++	+++++			
Yield efficiency												
Improved insulating properties												
Freeze-thaw resistance												
Effloresence control												
Hydrophobizing properties												
Beading effect												
Shrinkage reduction												
Release properties												
Corrosion protection												
RECOMMENDED CONCRETE SUPERPLASTICIZER	ર							• suitable • •	 highly recommended 			
Polycarboxylate ether (PCE)	•••	• • •	•	• • •		• • •	• • •	• • •	• • •			
Lignosulphonates	• • •	• • •	• •	• • •		• •	• •	• •	• • •			
Sulphonated naphtalene formaldehyde (SNF)	• •	• •	• • •	• •		• •	• •	• •	• • •			
Sulphonated melamine formaldehyde (SMF)	• •	• •	• • •	• • •		• •	• •	• •	• • •			
Blends (e.g. PCE – lignosulphonate)	• • •	• • •	• •	• • •		• •	• •	• •	• • •			

	AIR VOID MANAGEMENT	PROTECTION	MANAGEMENT	CURING MANAGEMENT	RELEASE MANAGEMENT		
	AIR ENTRAINER	WATER REPELLENTS		SHRINKAGE REDUCER	MOLD RELEASE		
	SITREN AirVoid° 601	TEGOSIVIN° HE 328	TEGOSIVIN° CA 880	SITREN° SRA L 210	SITREN° MR 870	SITREN° MR 871	
CHEMICAL NATURE	BLEND OF ANIONIC SURFACTANTS	EMULSION OF ORGANOMODIFIED SILOXANES / SILANES	EMULSION OF ALKOXY- FUNCTIONAL SILANES	MODIFIED POLYETHER	EMULSION OF VEGETABLE OILS	EMULSION OF VEGETABLE OILS	
SOLID CONTENT	35%	50%	60%	100%	58%	58%	
DOSAGE	0.01–0.5 % by weight of cement	0.1–1.0 % by weight of cement	0.1 – 1.0 % by weight of cement	0.5–2.0 % by weight of cement	10-18 g/m²	10–18 g/m²	
PRODUCT PROPERTIES				+ suitable ++ good	d +++ very good ++++	optimal +++++ excellent	
Air entrainment	++++			++			
Workability	++++						
Defoaming properties							
Compatibility					<u> </u>		
Surface appearance	++				++++	++++	
Dispersing effect	++++			++			
Wettability	++			++++			
Improvement of mechanical properties							
Durability	++++	+++++	++++	+++++	+++++	++++	
Yield efficiency	++++						
Improved insulating properties	++++	+++++	+++++				
Freeze-thaw resistance	++++	++++	+++				
Effloresence control		+++++	++++				
Hydrophobizing properties		++++	++++				
Beading effect		++++	++++				
Shrinkage reduction				+++++			
Release properties		_			++++	++++	
Corrosion protection					+++	++++	
	ı			1	****	:	
APPLICATION AREAS						suitable	
In-situ concrete / Readymix concrete							
Standard / Structural concrete						: 	
Lightweight concrete						! :	
Precast or prefabricated concrete							
Standard / Structural concrete						: :	
Lightweight concrete						:	
Paver and bricks							
Semi-dry concrete						: :	
Wetcast concrete							
Concrete screeds							
Concrete screeds							
Flowable screeds							
Special concrete							
HPC/UHPC ([ultra] high performance concrete)						<u> </u>	
Architectural concrete						: :	
Air entrained concrete						:	
Self-compacting concrete							
Reinforced concrete						:	
Prestressed concrete						<u>:</u>	