BUILDING TRUST

PRODUCT DATA SHEET

Sika® Plastiment® CR 20

High Performance Retarding Plasticiser for Concrete

DESCRIPTION

Sika® Plastiment® CR 20 is a high-performance plasticising retarder, beneficial in maintaining workability especially in high ambient temperatures. Suitable for use in hot and tropical climatic conditions.

USES

Sika® Plastiment® CR 20 is used for producing high quality concrete in applications such as:
- Ready mixed concrete
- Fair faced concrete
- Hot weather concreting
- Difficult placing conditions
- Long transportation distances

FEATURES

Sika® Plastiment® CR 20 provides the following properties:
- Excellent slump retention at high ambient temperature
- Extended setting time in hot weather
- Reduced water powder ratio without loss of workability
- Increased strength
- Reduced shrinkage and creep
- Better surface finish
- Reduces segregation and bleeding.
- Improves cohesion, workability and compactability in concrete using poorly graded/shaped fine aggregates
- Reduces honeycombing / cold joint effects
- Improves pumpability of concrete
- Reduces effects of various modes of attack on concrete and embedded steel by considerable reduction in permeability
- Minimise concrete placing problems in hot weather by improved workability and workability retention

CERTIFICATES AND TEST REPORTS

Sika® Plastiment® CR 20 follows the requirements of ASTM C494; Type B & D and EN 934-2

PRODUCT INFORMATION

Composition	Modified organic compounds
Packaging	200 L drum, 1000 L flowbin or bulk supply in tanker
Appearance and colour	Brown liquid
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 +45 °C. Protect from direct sunlight and frost. Mix well before using.
pH-Value	4 – 6

Total chloride ion content	Nil	(EN 934-2)
Specific gravity	~1.11 ± 0.02	

TECHNICAL INFORMATION

Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using Sika® Plastiment® CR 20 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	0.2 - 0.8 % by weight of total 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.
Compatibility	Sika® Plastiment® CR 20 may be combined with all types of Portland cement (OPC and SRC), concretes containing pozzolanic materials such as GGBS, PFA, micro-silica and the following Sika products: ▪ Sikaplast® range ▪ Sikaviscocrete® ranges ▪ SikaPump® ▪ Sika® FerroGard®-901 ▪ Sika® FerroGard®-CI 222 ▪ SikaFume® ▪ SikaFiber® ▪ Sika Aer® ▪ Sika®Stabilizer ▪ Sika®-1WT ▪ Sika® WT-10 ▪ Sikacontrol® 3122 WT We recommend performing trial mixes to establish the required performance when combining Sika® Plastiment® CR 20 with the above products or other admixtures. Please consult our Sika Technical Department.
Dispensing	Sika® Plastiment® CR 20 is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add Sika® Plastiment® CR 20 directly to the dry mix. The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after two thirds of the wet mixing time to avoid surplus water in the concrete.

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.

IMPORTANT CONSIDERATIONS

Before pouring, suitability tests on the fresh concrete must be carried out. With high workability mixes take special care that all formwork is properly installed and secured. If frozen and/or if precipitation has occurred, Sika® Plastiment® CR 20 may only be used after thawing slowly at room temperature and intensive mixing. When using Sika® Plastiment® CR 20 a suitable concrete mix must be designed for the local material sources and trial mixes performed to verify suitability. When accidental overdosing occurs the set retarding effect and workability increases along with bleeding. Additional air may also be entrained. During this period the concrete must be kept moist in order to prevent premature drying out.

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.

Sika Gulf B.S.C. (c)
Tel: +973 177 38188
Email: info@bh.sika.com
Sika Kuwait Cons. Mat. & Paints Co WLL
Tel: +965 22 282 296
Email: sika.kuwait@kw.sika.com
Web: gcc.sika.com

Sika UAE LLC
Sika MB Construction Chemicals LLC
Sika International Chemicals LLC
Tel: +971 4 439 8200
Email: info@ae.sika.com
Web: gcc.sika.com

Sika Saudi Arabia Limited
Sika Construction Chemicals for Manufacturing LLC
Riyadh / Jeddah / Dammam / Rabigh
Tel: +966 9200 22167
Email: info@sa.sika.com
Web: gcc.sika.com

Sika LLC - Oman
Sika MB LLC
Tel. +968 22 826 500
Email: info@om.sika.com
Web: gcc.sika.com