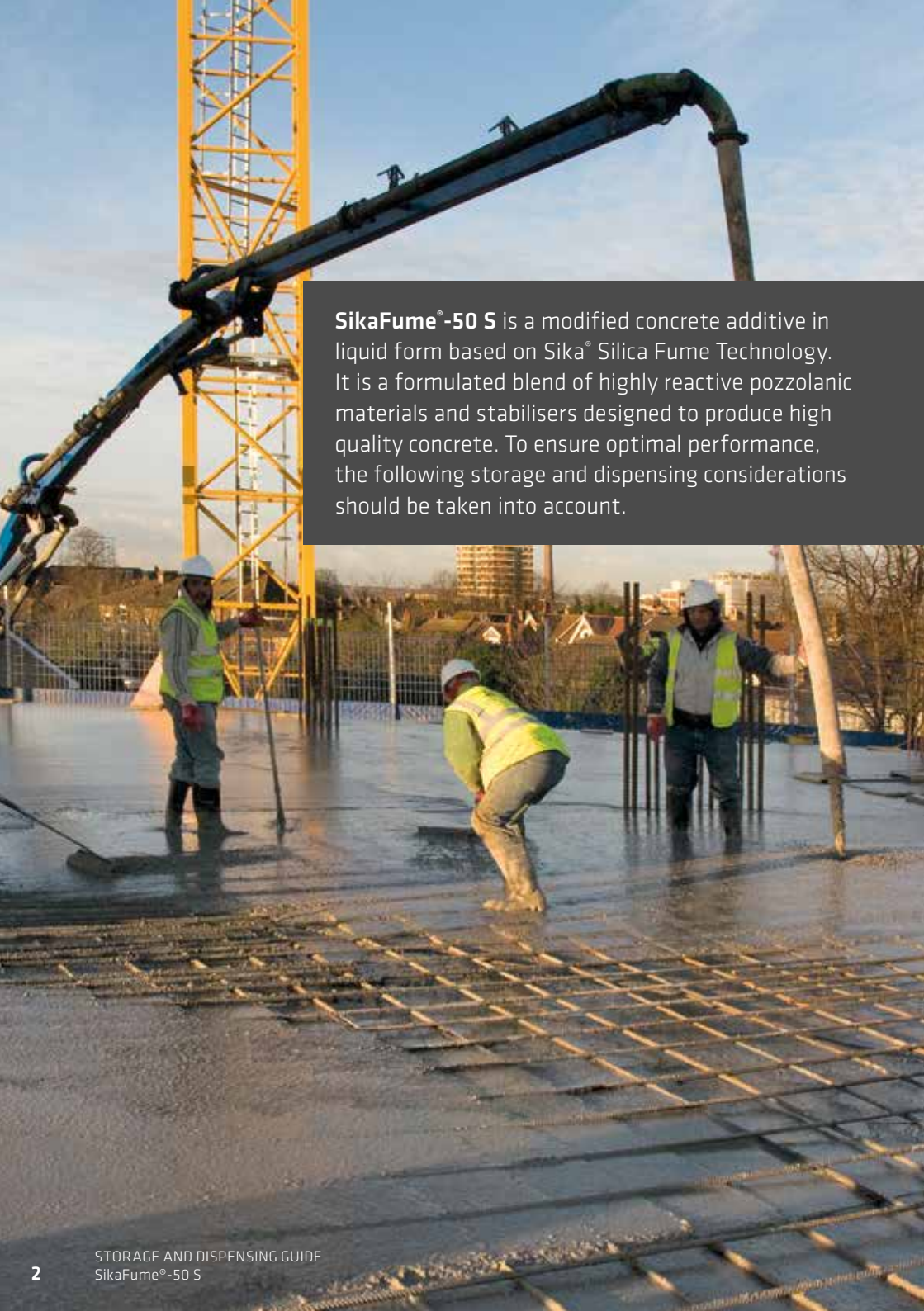
STORAGE AND DISPENSING GUIDE
SikaFume®-50 S

BUILDING TRUST



SikaFume®-50 S is a modified concrete additive in liquid form based on Sika® Silica Fume Technology. It is a formulated blend of highly reactive pozzolanic materials and stabilisers designed to produce high quality concrete. To ensure optimal performance, the following storage and dispensing considerations should be taken into account.

CORRECT STORAGE

RECIRCULATE THE MIX

Due to the density of the SikaFume®-50 S, recirculation of the slurry is required on a regular basis to prevent settlement of the suspended solids.

It is suggested the storage container is vigorously agitated or the contents recirculated for at least **two hours** in every forty eight hour period.

Sika can provide recirculation pumps to aid this process – please speak to your local Sika contact for more information.

Where material is held for extended periods, it is recommended **continuous slow circulation** is used in specially adapted storage tanks and that these tanks are cleaned to prevent build-up of solids every six months.

PROTECT FROM THE WEATHER

SikaFume®-50 S must be **protected from frost** – once frozen and defrosted, the product is no longer suitable for use.

In warm weather, storage containers should be sealed to **prevent evaporation**.

PROTECT FROM ALKALINES

The pH of SikaFume®-50 S will naturally increase over time leading to an increase in viscosity of the product and eventually forming a gel, making it unsuitable for use. SikaFume®-50 S has a **shelf life of six months** given correct storage.

Contamination of SikaFume®-50 S by alkaline materials and PCE based admixtures can cause an **increase in viscosity and potential gelling**. Precautions should be taken to ensure contamination from other admixtures does not occur whilst in storage.

CORRECT DISPENSING

SIKA RECOMMEND THE USE OF SPECIALIST PUMPING AND DISPENSING EQUIPMENT FOR SikaFume®-50 S. UPON REQUEST SIKA CAN PROVIDE A MOBILE 500 LITRE AIR OPERATED VOLUMETRIC DISPENSING PUMP AS ILLUSTRATED HERE.

Sika can also provide a technologist to support customers for initial use and a **recirculation pump to aid prolonged storage** of material on a concrete plant – please contact your local representative for more information and charges for these services.

SikaFume®-50 S should be loaded into a concrete mixer truck according to the plant configuration as outlined on page 5. Care should be taken to ensure any washout water from previous loads is emptied prior to addition.

Direct contact between SikaFume®-50 S and **washout water or grout** from previous loads **can cause balling** of the SikaFume®-50 S which is unlikely to break down within the fresh concrete.

The pump unit and all associated pipework should be washed through with clean water at the end of each production period to prevent build-up.

Loading via:
DRY BATCH PLANT

- Reverse truck mixer to remove remaining wash water. Add the required SikaFume®-50 S with the coarse and fine aggregates and 75-90% of the batch water. Do not add slurry to an empty truck mixer without aggregates and batch water.
- Begin to slowly ribbon feed the cement in with any remaining aggregates. Avoid surges when adding cement.
- A sufficient quantity of plasticiser should be added with the initial batch water to obtain a target slump of 70 to 120mm when producing low w/c ratio concretes. Sufficient mixing of the concrete, normally 100 or more revolutions at mixing speed, must occur so as to insure a uniform slump throughout the entire load.
- Add the remaining batch water and HRWR required to produce the desired slump and mix a minimum of 30 revolutions at mixing speed.

Loading via:
CENTRAL MIX PLANT

- Remove excess wash water from the central mixer. Add the required SikaFume®-50 S with the coarse aggregate, fine aggregate, and 75-90% of the batch water. Do not add microsilica slurry to an empty mixer without accompanying batch water.
- Begin to slowly ribbon feed the cement in with any remaining aggregates. Avoid surges when adding cement.
- A sufficient quantity of water reducer or HRWR should be added to initial batch water to obtain a target slump of 2-4 inches when producing low w/c ratio concretes. Sufficient mixing should occur so as to insure a uniform slump throughout the entire load. Microsilica concrete will require a longer mixing time.
- Add the remaining batch water and HRWR required to produce the desired slump and mix for a sufficient length of time to obtain a uniform slump.

SikaFume®-50 S
THE POWER BEHIND THE PERFORMANCE

Find out about our project case studies at **sikaconcrete.co.uk/microsilica**

FOR MORE INFORMATION:

Visit **www.sikaconcrete.co.uk**

WHO WE ARE

Sika Limited and Sika Ireland Limited are part of the global Sika Group, specialising in the manufacture and supply of chemical based products. Sika have a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing, and protecting in the building sector and the motor vehicle industry. Sika has subsidiaries in 101 countries around the world and manufactures in over 200 factories. With more than 20,000 employees Sika generates annual sales of CHF 7.09 billion (£5.45bn). We are also committed to providing quality, service, safety and environmental care.

In the UK and Ireland, we provide market-leading solutions for concrete, waterproofing, roofing, flooring, refurbishment, sealing & bonding, and industry, and have manufacturing sites in Welwyn Garden City, Preston, Leeds and Dublin with more than 870 employees and a turnover of more than £260 million.

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