



CONCRETE SOLVING AGGREGATE CHALLENGES IN CONCRETE PRODUCTION

UNLOCK THE SAFE USING THE SIKA C.O.D.E. METHOD

SOLVING AGGREGATE CHALLENGES IN CONCRETE PRODUCTION

Huge amounts of aggregates and sand are required for concrete production and many other industries, leading to a lack of natural resources for high quality sands and aggregates. Concrete producers need to source alternatives, like manufactured, recycled, crushed sands and aggregates or sands contaminated with clay or other minerals.

Use of such alternative materials leads to changes in fresh and hardened concrete properties which cannot always be controlled with conventional admixtures available. Resulting challenges in concrete production can have several reasons, and thus the problems need to be analysed before a proper solution can be found.

Sika developed a concept for finding the right solution for the issues observed by the customer related to sands and aggregates. In many cases, the reason for changing or problematic concrete properties is not obvious. Therefore, several steps are required to identify the problem to give the right support and product solutions.

With our concept, we want to help you unlock the safe using the Sika C.O.D.E. method.





1. Customer Challenge
2. Operated Analysis
3. Diagnosis of Cause
4. Effective Sika Solution
5. Unlocked Projects

C - CUSTOMER CHALLENGE

It is important to listen to the customer and understand the challenges that he or she must solve. Sika experts discuss the problems with customers while making sure to fully understand their needs. The following issues may arise in concrete production:

- High water demand
- High admixture absorption
- Stickiness
- Bleeding/ segregation
- Pumpability
- Poor surface quality
- Slump retention

D - DIAGNOSIS OF THE CAUSE

With the analytical results, the cause of the customer challenge can be diagnosed. Of course, it can be that there are several causes that lead to an issue. However, most of them can be found in this list:

- Water absorption
- Admixture absorption
- The particles have an unfavorable shape (e.g. too edgy for crushed sands).
- High fines
- Low fines

O - OPERATED ANALYSIS

The next step in the Sika CODE concept is the analysis. Samples of the sands and aggregates are analysed using several methods in the Sika technology labs all over the world. The focus of the analysis involves the following points:

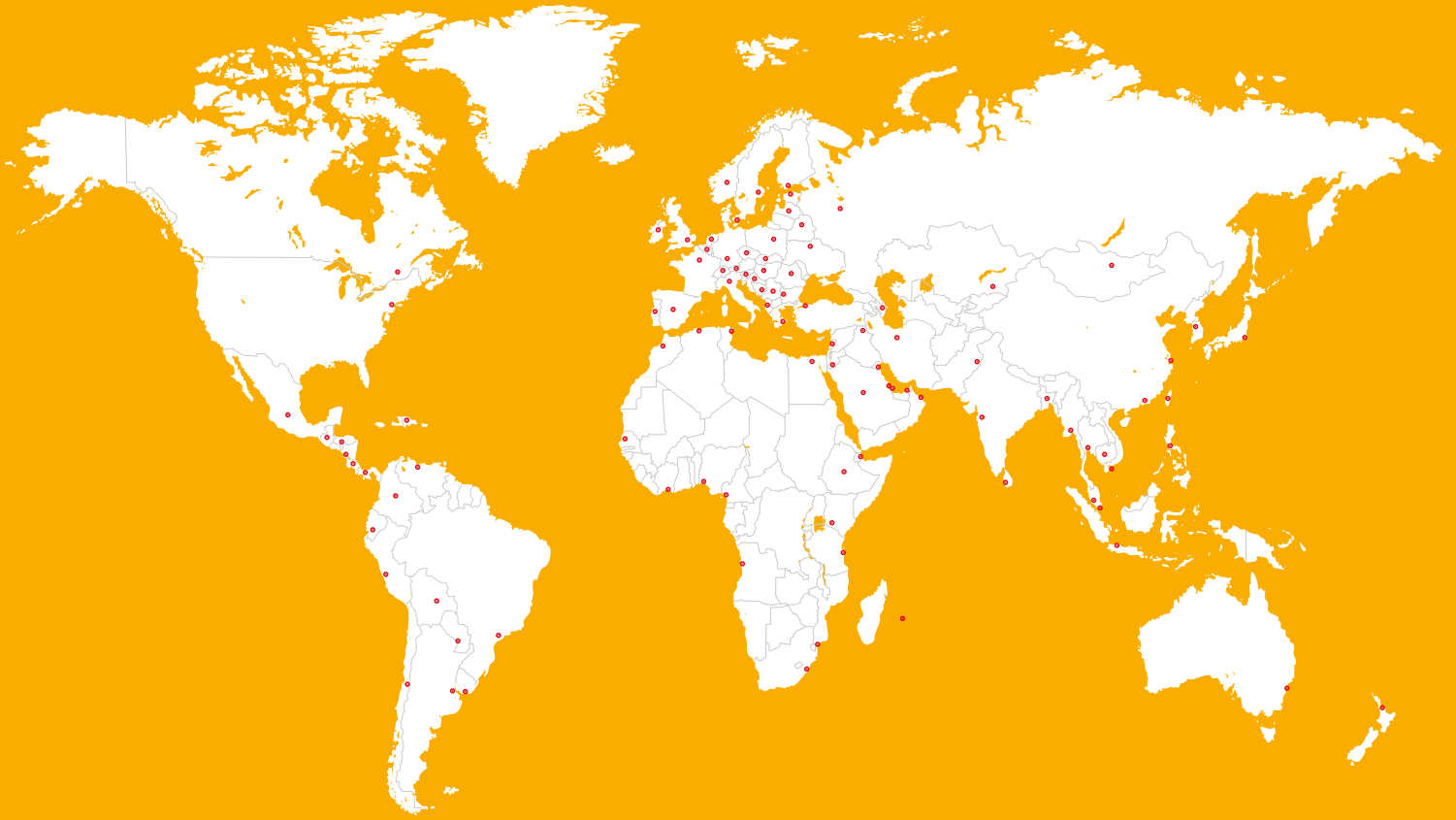
- Mineralogy
- Grading
- Absorption
- Aspect

E - EFFECTIVE SIKA SOLUTION

After the identification of the cause, our Sika experts can work on the most effective solution for our customer. The solution can be a product, combination of products, technical support or both products and support. Amongst others, the following solutions can be offered:

- Concrete mix design app
- Technical Support
- Water reducers
- Stabilizers

GLOBAL BUT LOCAL PARTNERSHIP



FOR MORE INFORMATION:



WE ARE SIKA

Sika is a specialty chemicals company with 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's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.



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



SIKA SERVICES AG
Tueffenwies 16
CH-8048 Zurich
Switzerland

Contact
Phone +41 58 436 40 40
www.sika.com

BUILDING TRUST

