

# The solution to sustainable construction challenges

## **Challenging** sands use

New Quad® admixture solutions are the perfect answer to challenging sand types, producing concrete that meets your performance criteria.

### **Circular economy**

Analyzing new sources of supply close to your production site enables you to implement a circular economy approach, identifying the right admixture solution for the use of local aggregates or recycled concrete aggregates from dismantling.

### **Lower** production costs

Optimize production and sand supply costs by using resources closer to home, while improving the quality and performance of concrete using complex aggregates and sands.



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### Challenging sands

#### IMPACT ON CONCRETE PLACEMENT AND PERFORMANCE

Resource depletion and the availability of new types of sand make sand supply a major challenge.

## **Quad**<sup>®</sup>: The solution to complex sand use

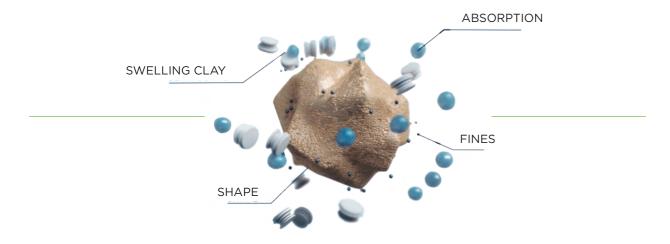
Characteristics and challenges

#### **Low fines content**

- Compactness Porosity
- Slump retention Bleeding, pumpability issues

#### **High fines content**

- Water / admixture needs
- Slump retention Pumpability and workability
- Productivity Mixing time



#### **Specific sand shapes**

- Water / admixture needs
- Slump retention Pumpability and workability
- Workability retention
- Productivity Mixing time

#### **Swelling clay**

- Water / admixture needs
- Slump retention Pumpability and workability
- Workability retention
- Productivity Mixing time

# Because your sand is unique, we offer a tailor-made solution

# High fines content

and/or swelling clay



#### Quad®

700 / 800 / 900 Series

#### ENSURES EFFECTIVE BINDER DISPERSION

- Enhances the admixture dosage rate (PCP)
- Increases workability retention

#### **REDUCES VISCOSITY**

- Improves placement
- Facilitates finishing work

# Low fines content

and/or unfavourable shape factors



GRAFT TECHNOLOGY

By CHRYSO

#### **Quad**®

400 / 500 / 600 Series

#### **IMPROVES CONCRETE COHESIVENESS**

- Reduces bleeding and microsegregation
- Lowers the risk of cracking
- Increases workability retention

#### SIMPLIFIES FINISHING WORK

• Improves aggregate coating

# Innovative and fast sand analysis

#### Quad® Lab

# Sand characterisation data:

- Fineness modulus
- Type of sand
- Absorption rate



### Identification of swelling clay: Chryso®Clear Test

A leading-edge tool for analyzing sand containing swelling clay: Chryso®Clear Test

Field or laboratory testing

Immediate results



#### Quad® Lab App

We use the data collected to determine the best **Quad**® solution **for your specific needs**.

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PATENTED TECHNOLOGY

**Quad® App** analyzes new sources of supply in the vicinity of your production site, and identifies the appropriate admixture solution based on performance requirements.

