



# SIKA AT WORK

## LOAD BEARING SYSTEM FOR SAN RAFAEL MINING UNIT, PUNO, PERU

CONCRETE PRODUCTION: Sika® ViscoCrete® SC-50  
Sigunit® L-60 Plus  
SikaFiber® CHO-65/35 NB  
SikaFiber® Force-60

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# LOAD BEARING SYSTEM FOR SAN RAFAEL MINING UNIT



## PROJECT DESCRIPTION

San Rafael Mine is a tin mining operation located in the Antauta district, Melgar Province, Puno Region, Peru, at an altitude of 4,500 meters above sea level, with its highest point reaching over 5,000 meters. San Rafael is the third-largest tin producer in the world, currently supplying 12% of the global tin production.

## PRODUCT REQUIREMENTS

The mine requires measures to minimize the risks of rock detachment and, at the same time, improve mineral production through the use of structural support with wet-mix shotcrete.

## SIKA SOLUTION

To address this requirement, Sika and Robocon conducted from 2018 to 2020 preliminary work on Shotcrete mix designs to enhance support, using the most suitable products for high-performance Shotcrete.

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

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

## SIKA PRODUCTS

- Sika® ViscoCrete® SC-50: High-performance superplasticizer and workability retainer for Shotcrete.
- Sigunit® L-60 Plus: An accelerator for dry- and wet-mix Shotcrete, designed for tunnel and slope support applications.
- SikaFiber® CHO-65/35 NB: High-quality, drawn steel fibers for reinforcement in traditional and Shotcrete concrete.
- SikaFiber® Force-60: Synthetic macro fiber for structural use in Shotcrete and conventional concrete.

## PROJECT PARTICIPANTS

ROBOCON SERVICIOS S.A.C.



**SIKA SERVICES AG**  
Tueffenwies 16  
CH-8048 Zurich  
Switzerland

**Contact**  
Phone +41 58 436 40 40  
[www.sika.com](http://www.sika.com)

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