# S & LUTIONS









## PROJECT:

Old Slag Dumping Yard-Wall

OWNER: Qatar Steel YEAR: April 2013

## The Details

PROJECT CONTRACTOR: Apollo Industrial Services PROJECT ENGINEER: Qatar Steel MARKET/ENVIRONMENT: Steel SUBSTRATE: Concrete PRODUCT USED: Five Star Structural Concrete® HTR Shotcrete SIZE OF PROJECT:

4,500 Bags of product: Wall size area: 80M x 4.5M x 0.1M

**The Challenge** — As the original Old Slag Dumping Wall was in obvious need of repair (i.e. exposed rebar), the challenge here was to effectively renovate the wall without major reconstruction.

**The Solution** — Five Star Structural Concrete<sup>®</sup> HTR Shotcrete is a unique high temperature tolerant concrete repair material which is applied by dry process shotcrete. As it gains strength rapidly and can be exposed to 1,000 °F (538 °C) in three hours and up to 2,400 °F (1,316 °C) after a 7-day curing procedure, it is an ideal product to be applied to this vertical wall. Five Star Structural Concrete<sup>®</sup> HTR Shotcrete was chosen for its ability to secure large areas with a high strength, sprayable concrete.



# **FIVE STAR STRUCTURAL CONCRETE® HTR**

## High Early Strength Repair for High Temperature Exposure

### **PRODUCT DESCRIPTION**

Five Star Structural Concrete<sup>®</sup> HTR is a unique high temperature resistant concrete repair material which can be pumped or poured into place. Five Star Structural Concrete<sup>®</sup> HTR gains strength rapidly and can be exposed to 1,000°F (538°C) in six hours and up to 2,400°F (1,316°C) after a 7-day curing procedure.

#### **ADVANTAGES**

<ul> <li>Thermal shock resistant</li> <li>High temperature resistance</li> </ul>	<ul> <li>Rapid strength gain</li> <li>Resistant to sulfates</li> </ul>	<ul> <li>Dry process shotcrete application</li> <li>Excellent freeze/thaw resistance</li> </ul>
USES		
<ul> <li>Areas of high temperature exposure</li> <li>Thermal cycling up to 2,400°F (1,316°C)</li> </ul>	<ul> <li>Rapid repairs during shutdowns</li> <li>Coker, kiln, and foundry repairs</li> </ul>	

#### **FIVE STAR® SERVICES**

- Design-A-Spec<sup>™</sup> engineering specification assistance
- Technical on-call center with field and project experienced staff
- Field support representatives for on-site consultation
- Corporate research laboratory available to customize products for unique applications



For worldwide availability, additional product information and technical support, contact your local Five Star<sup>®</sup> licensee, distributor, local sales representative, or you may call the Five Star Products' Engineering and Technical Service Center at 1-800-243-2206 (from the U.S.) or +1 203-336-7900 (outside the U.S.).

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