

# S L U T I O N S



## 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:

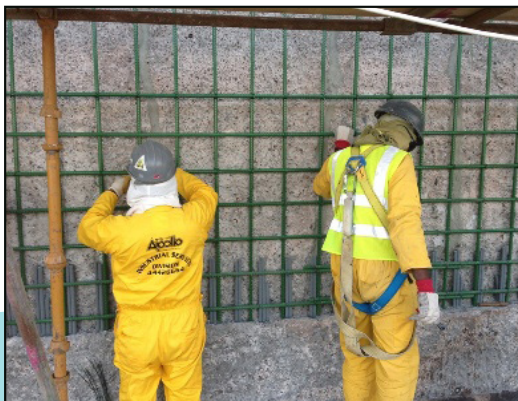
**Five Star Structural Concrete® HTR Shotcrete**

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® 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® HTR Shotcrete was chosen for its ability to secure large areas with a high strength, sprayable concrete.



**FIVE STAR**  
Specified by the World's Best™

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# FIVE STAR STRUCTURAL CONCRETE® HTR

## High Early Strength Repair for High Temperature Exposure

### PRODUCT DESCRIPTION

Five Star Structural Concrete® HTR is a unique high temperature resistant concrete repair material which can be pumped or poured into place. Five Star Structural Concrete® 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 style="list-style-type: none"><li>• Thermal shock resistant</li><li>• High temperature resistance</li></ul> | <ul style="list-style-type: none"><li>• Rapid strength gain</li><li>• Resistant to sulfates</li></ul> | <ul style="list-style-type: none"><li>• Dry process shotcrete application</li><li>• Excellent freeze/thaw resistance</li></ul> |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

### USES

- |                                                                                                                                          |                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Areas of high temperature exposure</li><li>• Thermal cycling up to 2,400 °F (1,316 °C)</li></ul> | <ul style="list-style-type: none"><li>• Rapid repairs during shutdowns</li><li>• Coker, kiln, and foundry repairs</li></ul> |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|

### FIVE STAR® SERVICES

- Design-A-Spec™ 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® 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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