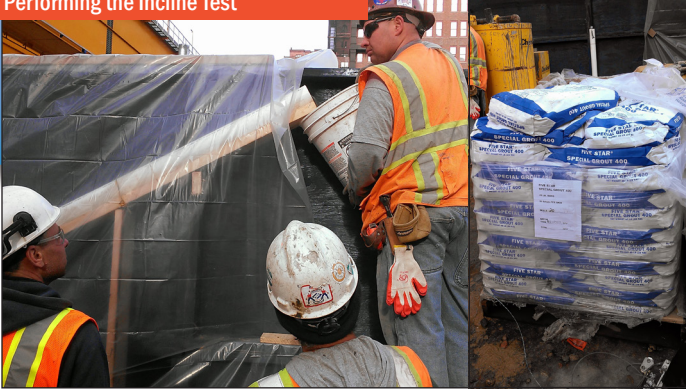


# S L U T I O N S

Performing the Incline Test



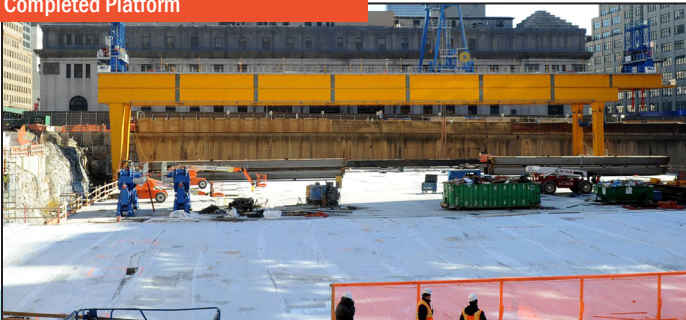
Readying the Tendons



Precast Slabs in Place



Completed Platform



## PROJECT:

*Brookfield/Manhattan West Platform – New York City*

**OWNER:** Brookfield Properties

**YEAR:** 2013-2014

## The Details

PROJECT CONTRACTOR:

Rizzani de Eccher USA Inc.

PROJECT ENGINEER:

Rizzani de Eccher USA Inc.

MARKET/ENVIRONMENT:

Infrastructure

PRODUCT USED:

**Five Star® Special Grout 400**

**The Challenge** — Fabrication and erection of 16 span by span bridges with a record length of over 73 meters and a weight of 2,400 tons. The scope of the work was to build a platform that would cover an open trench located in the middle of a lot, while not disturbing the 15 railway tracks located 20 meters below street level or interrupting the continuous train traffic carrying some 800,000 people a day in and out of Penn Station.

**The Solution** — Five Star® Special Grout 400 was the preferred choice for this project. This cement-based fluid grout is specifically formulated for the grouting of cables and tendons requiring corrosion protection, and for the grouting between precast panels. It is non-metallic and non-shrink and meets the Post Tension Institute specifications for grouting post-tensioned structures.



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

**FiveStarProducts.com**

# SPECIAL GROUT 400

## Fluid Precision Non-shrink Cable Grout

### PRODUCT DESCRIPTION

Five Star® Special Grout 400 is a cement-based, non-metallic, non-shrink, fluid grout specifically formulated for grouting of cables and tendons requiring corrosion protection. When tested in accordance with ASTM C 827, Five Star® Special Grout 400 shows positive expansion. Five Star® Special Grout 400 meets the performance requirements of ASTM C 1107-02 Grades A, B and C, ASTM C 1107-07, CRD-C 621-93 specifications for non-shrink grout, and Post Tensioning Institute specifications for grouting post tensioned structures.

### ADVANTAGES

- Air Release technology per ACI 351.1 R
- Pumpable fluid grout for very tight clearances
- Non-bleeding
- Permanent filling of voids
- Extended working time
- Pumpable up to 2 hours at 90 °F (32 °C)
- Non-shrink from the time of placement
- Does not contain aluminum powder

### USES

- Provides corrosion protection of bridge cables
- Non-shrink grouting between precast panels, walls and beams
- Pressure placement into tendon ducts

### 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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