

# SOLUTIONS



## PROJECT:

*Sammy Ofer Stadium  
Haifa, Israel*

**OWNER:** THE MUNICIPALITY OF HAIFA

**YEAR:** May 2013

## The Details

PROJECT CONTRACTOR:

Electra-B.S.T Registered Partnership/HAGIVA Y.H. LTD

PROJECT MANAGER:

Electra-B.S.T: Silviyan Chachmo

PROJECT ENGINEER:

Electra-B.S.T: Ofer Luzon / HAGIVA Y.H.: Priel Levy

MARKET/ENVIRONMENT:

Infrastructure

SUBSTRATE:

Steel/Concrete

PRODUCTS USED:

**Five Star® Fluid Grout 100 and Five Star® Grout**

SIZE OF PROJECT:

Five Star® Fluid Grout 100: 30,000 Kg / Five Star® Grout: 55,000 Kg

**The Challenge** – To construct an environmentally friendly, covered, 30,000 seat stadium in Israel's largest city of Haifa for the convenience of spectators, players and judges. As such, two of the countries predominant construction entities were selected. A partnership was formed between Electra BST Registered Partnership and constructor Yossi Shiran, the largest engineering company in Israel to complete this 80 million dollar stadium over the course of five years.

**The Solution** – Five Star® Fluid Grout 100 and Five Star® Grout enabled contractors to create a unique stadium that is both meticulous and intentional in catering to the convenience of its visitors and players. Five Star's industry leading cement-based, non-metallic, non-shrink Fluid Grout 100 and Five Star® Grout were integral to the stadium's construction.



FIVE STAR

FiveStarProducts.com

# FLUID GROUT 100

HIGH PERFORMANCE PRECISION NON-SHRINK FLUID GROUT

## PRODUCT DESCRIPTION

Five Star® Fluid Grout 100 is the industry's leading cement-based, non-metallic, non-shrink fluid grout for supporting machinery and equipment. It is formulated with Air Release technology that combines high performance with the greatest reliability. When tested in accordance with ASTM C 827, Five Star® Fluid Grout 100 exhibits positive expansion. Five Star® Fluid Grout 100 meets the performance requirements of ASTM C 1107-02 Grades A, B and C, ASTM C 1107-07 and CRD-C 621-93 specifications for non-shrink grout over a wide temperature range, 40°F - 90°F (4°C - 32°C).

## ADVANTAGES

- Air release technology per ACI 351.1 R
- Placement within tight clearances down to 1/2 inch
- High 1, 7, 28 day strength
- Permanent support for machinery requiring precision alignment
- Does not contain gas generating additives, such as aluminum powder
- Non-shrink from the time of placement

## USES

- Grouting clearances to 1/2 inch
- Grouting of anchors and dowels
- Grouting of machinery and equipment to maintain precision alignment
- Non-shrink grouting of structural steel and precast concrete
- Preplaced aggregate grouting
- Support of tanks and vessels
- Available for Nuclear Safety Zone Applications<sup>1</sup>

<sup>1</sup>Compliant with NRC 10CFR50 Appendix B and ASME NQA-1 Quality Programs

# FIVE STAR® GROUT

HIGH PERFORMANCE PRECISION NON-SHRINK GROUT

## PRODUCT DESCRIPTION

Five Star® Grout is the industry's leading cement-based, non-metallic, non-shrink grout for supporting machinery and equipment. It is formulated with Air Release technology that combines high performance with the greatest reliability. When tested in accordance with ASTM C 827, Five Star® Grout exhibits positive expansion. Five Star® Grout meets the performance requirements of ASTM C 1107-02 Grades A, B and C, ASTM C 1107-07, and CRD-C 621-93 specifications for non-shrink grout over a wide temperature range, 40°F - 90°F (4°C - 32°C).

## ADVANTAGES

- Air release technology per ACI 351.1 R
- 95% Effective Bearing Area (EBA) is typically achieved following proper grouting procedures
- Provides placement versatility: pour, pump or dry pack
- 45-minute working time
- Permanent support for machinery requiring precision alignment
- Does not contain gas generating additives, such as aluminum powder
- Non-shrink from the time of placement

## USES

- Grouting of machinery and equipment to maintain precision alignment
- Non-shrink grouting of structural steel and precast concrete
- Grouting of anchors and dowels
- Support of tanks and vessels
- Available for Nuclear Safety Zone Applications

<sup>1</sup>Compliant with NRC 10CFR50 Appendix B and ASME NQA-1 Quality Programs



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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 at 1-800-243-2206 (within the U.S.) or +1 203-336-7900 (outside the U.S.).