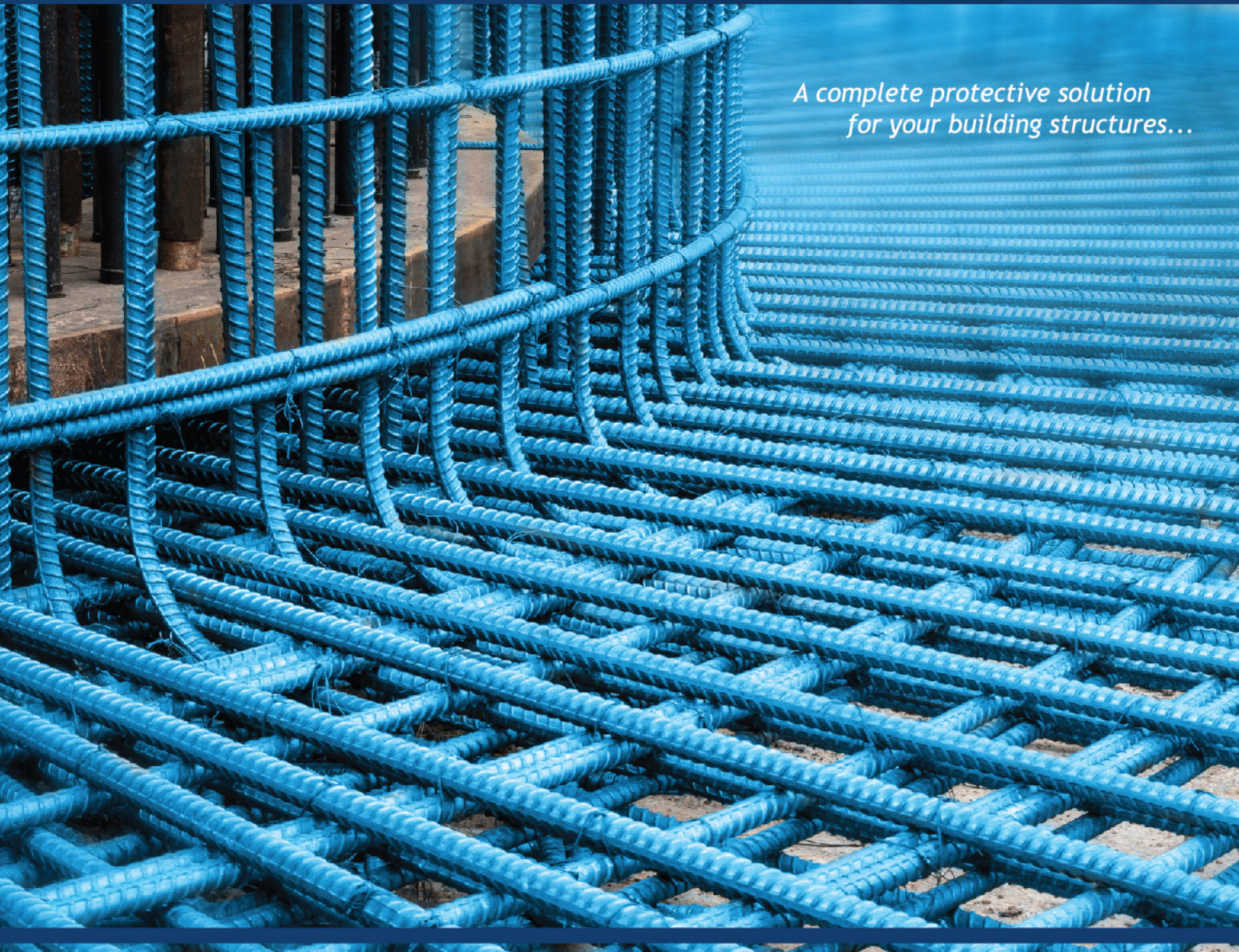




# **NATIONAL<sup>®</sup>** **PAINTS**

*A complete protective solution  
for your building structures...*



*National*  
**NextGen**  
**FBE REBAR COATING**



National NextGen Rebar FBE is a flexible, corrosion resistant, fast-cure powder coating designed for the protection of concrete reinforcing steel bars.

National NextGen fusion bonded epoxy is extremely reactive and cures quickly to make a uniform hard film that provides incredible levels of protection to rebar structures. It is economical and easy to apply for rebar applicators.

## PRODUCTS FOR REBAR COATING

### National NextGen NP-F9700RC

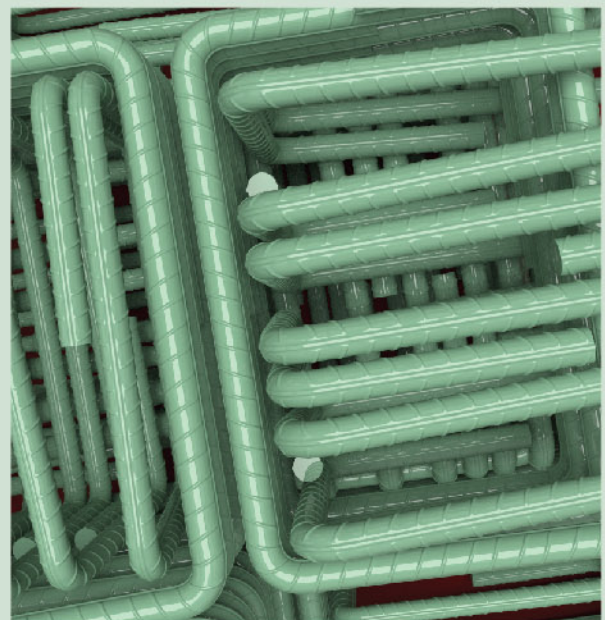
NP-F9700RC a specially designed new generation thermosetting FBE powder for pre and post fabricated reinforcing steel bars. It provides very good corrosion protection, chemical resistance, and improved wet adhesion. It is a fast cure product applied on straight bars, dowel bars and baskets. It meets the requirement of ASTM A 775/A standard.

### National NextGen NP-F9702RC

NP-F9702RC is a specially designed FBE with increased flexibility as per ISO 14654-1999E for corrosion protection of steel reinforcing steel bars. It is applied to preheated bars as a dry powder which melts and cures in order to make a hard durable coating film. It provides outstanding flexibility and can be used in areas where high flexible coatings are required.

### National NextGen Design for Rebar FBE

- Optimum corrosion protection
- Excellent flexibility
- Outstanding adhesion
- Very good flow properties
- Excellent chemical resistance
- Strong cathodic disbonding resistance
- Fast curing for high speed application
- Can ship with minimum damage
- Economical
- NP-F9700RC Meets ASTM A 775/A
- NP-F9702RC Meets ISO 14654-1999E







## APPLICATION PROCESS

National NextGen Rebar FBE with excellent coverage and transfer efficiency exhibits outstanding application properties delivering a uniform coating film with minimum cob webbing.

### Stage 1: Surface Preparation

- Remove grease or oil contamination prior to blasting.
- Use steel shot or grit blast cleaning to SSPC-SP10 or NACE near white metal surface.

### Stage 2: Pre Heating

- Preheat by using commonly used “induction heating” method to the recommended temperature range as per rebar size.

### Stage 3: FBE Coating

- Apply powder on rebars by suitable electrostatic spraying system as per required DFT level.

### Stage 4: Water Quenching

- Allow curing by residual heat, followed by water quenching.

### Stage 5: Holiday Test

- Electrical inspection for holidays/pinholes after cooling the bars.



## CHARACTERISTICS

Our high quality FBE powder provides optimum corrosion protection to steel reinforcing bars for long term structural performance. It meets the performance requirements as tested by 3<sup>rd</sup> party independent labs according to the international standards.

### Flexibility

The mandrel bend test is completed to demonstrate the coating flexibility. Performance should indicate no cracks in the coating on the outer radius of the bars.

### Relative Bond Strength

This test is used to determine the mean bond strength of the coated bars; which should not be lesser than 85% of the mean bond strength of uncoated bars.

### Abrasion Resistance

Taber abrasion test is performed as per ASTM D4060 and results should indicate a weight loss of not more than 100 mg.

### Impact Resistance

Impact resistance of the coated bars determined by falling weight test, requiring no shattering, cracking or bond loss.

### Cathodic Disbondment

The effect of electrical and electrochemical stresses on the bond of coating to steel and integrity of the coating is assessed.

### Salt Spray Resistance

The resistance of the coating to hot and wet corrosive environment is evaluated by exposing 250mm long coated steel bars to salt spray as per ASTM A 775/A



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