

What can be expected from a structural primer?

Primers applied to Nucor structural systems are just that, primers. Primers are not finished paint. Unfortunately, unlike finished paint systems, primers are designed to protect the steel from the elements for only a short period of time. The greatest protection from rusting is and always has been timely scheduling of the fabrication and erection process. Each Nucor building is assigned a schedule in writing shortly after the order is entered. That schedule is tracked on a weekly basis. Contractors are encouraged to take full advantage of the scheduling process to reduce the possibility of rust staining due to exposure to the elements.

Our world is a different place than it was twenty years or so ago. At one time, we were free to manufacture and prime paint a wide variety of finishes. Some of these finishes contained heavy metals. Today, our world is a little cleaner. There are rigid standards for emissions governing manufacturers like ourselves and rightfully so. Under our present standards, most manufacturers may supply only their standard primer.

Nucor offers our steel coated with both red and gray primer, galvanized, or unpainted. Unpainted steel is usually used when special paint or cementous coatings are specified. The contractor or owner usually subcontracts the finish painting or application of the more aggressive primer systems.

Nucor offers primers in either red or gray. The gray primers usually cost slightly more and often come with a schedule impact. Some miscellaneous clips will be provided in red primer even on the gray orders. The red primer offered by Nucor is colored such that normal chain and construction marks are masked by the color. Gray primer has a greater opportunity to show any sign of rusting due to the contrasting color of the primer compared to normal surface rust.

When specifying a gray primer order to Nucor, it is extremely important to coordinate delivery on a "just in time" basis. The chemical fingerprint of the two color primers is almost identical; therefore they tend to give similar short-term protections. The increased price of gray is due largely to manufacturing and paint cost issues.

In planning a successful project it is vital for the contractor to keep in constant touch with the manufacturer so that the "just in time" scheduling is accomplished. Once fabricated, Nucor has no facilities for storage. Some arrangements must be made by the contractor to take delivery and protect the steel before erection. Exposure to the elements may require repainting in the field. The cost of this repainting is usually borne by the party responsible for the delay.

Planning and coordinating projects closely with the construction process greatly reduces the occurrence of staining of structural steel due to the effects of weather. For

What can be expected from a structural primer, continued

Nucor Building Systems Specification Guide...All structural framing members that are not galvanized shall be given one shop coat of a red primer. Gray primer is available at an additional cost but must be requested under special requirements of the order

document and applied to a nominal thickness of .8mil.... Reference MBMA section 4.2.4 and AISC Section 6.5 for intended primer protection...

AISC Code of Standard Practice

- **Section 4.1 Owner's Responsibility-** The owner's responsibility for the proper planning of the work and the communication of all facts of his particular project is a requirement of the Code, not only at the time of bidding, but also throughout the term of the project.When the owner releases plans and specifications for construction, the fabricator and erector rely on the fact that these are the owner's requirements for his project.
The Code defines the owner as including a designated representative such as the architect, engineer or project manager, and when these representatives direct specific action to be taken, they are acting as and for the owner.
- **Section 6.5.2 Shop Painting-** The shop coat of paint is the prime coat of the protective system. It protects the steel for only a short period of exposure in ordinary atmospheric conditions, and is considered a temporary and provisional coating. The fabricator does not assume the responsibility for deterioration of the prime coat that may result from extended exposure to ordinary atmospheric conditions, nor from exposure to corrosive conditions more severe than ordinary atmospheric conditions.

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***Common Industry Practices* Section 4-Materials and Fabrication 4.2.4-Structural Framing Shop Primer-...**The manufacturer is not responsible for deterioration of the shop coat of primer or corrosion that may result from exposure to atmospheric and environmental conditions, nor the compatibility of the primer to any field applied coatings.

Nucor Building Systems Warranty Guide

VII. Primer Notice- Structural primers for Nucor Buildings-The primer that you find on Nucor primary and secondary framing is highly regulated by various federal and state agencies. The paint now applied is a primer coat designed only to protect the product for very short periods of time....Extreme care must be given by the builder in planning the project schedule...Nucor can supply gray primer at an additional cost. Gray primers are not a finish coat and present the builder special risks due to the contrasting color of the primer and steel rust. Nucor will accept no backcharges for rust appearing on structural steel.