Rust-Oleum® Industrial Brands Specification

Coating Specification for Rust-Oleum Virtual Solutions Coating Solution 26

A solvent based coating system

High Performance 470 / 473 Aluminum High Heat Coatings
For service on steel substrate up to 350° F (177° C)

Specification Prepared by: Rust-Oleum Technical Service, March 2011

This is a general coating specification. Changes to this specification may void any product warranties. Contact your Rust-Oleum representative or Rust-Oleum Technical Service if modifications are required to better meet your needs.

RUST-OLEUM®
INDUSTRIAL BRANDS

PART I GENERAL

1.01 SCOPE OF WORK

A. Provide all materials and labor necessary to install Rust-Oleum High Performance 470 or 473 Aluminum High Heat Coatings in strict accordance with project drawings, specifications and current Rust-Oleum Corporation application instructions.

1.02 RELATED WORK BY OTHER (SELECT AS NEEDED)

A. Division 3 Concrete
B. Division 4 Masonry
C. Division 5 Metals
D. Division 6 Wood
E. Division 7 Thermal & Moisture Protection
F. Division 10 Specialties
G. Division 11 Special Construction

1.03 SYSTEM DESCRIPTION

A. The Rust-Oleum High Performance 470 or 473 Aluminum High Heat Coatings are solvent based, modified alkyd enamel coating system manufactured by Rust-Oleum Corporation, located at 11 Hawthorn Parkway, Vernon Hills, IL 60061 (847) 367-7700. The High Performance 470 or 473 Aluminum High Heat Coatings are suitable for use on properly prepared steel surface with surface temperature up to 350ºF (177ºC).

1.04 ENGINEERING AND DESIGN REQUIREMENTS

A. The Design Architect and Project Engineer shall be responsible for all decisions pertaining to design, detail, and structural capability. Rust-Oleum Corporation has written specifications, technical data and application information to assist in the design and engineering processes.

B. Equivalent materials of other manufacturers may be substituted on approval of the engineer or designer. These requests for substitution shall include manufacturerôs literature for each product giving the name, resin type, descriptive information, volume solids, and recommended dry film thickness. A list of a minimum of ten (10) projects where the coating system has been applied and performed to expectations for at least three (3) years service is also required. No requests for substitution shall be considered that lower system film thickness, number of coats and/or change the resin type of the specified coating. Equivalent product substitutions will be accepted only from the Contractor and will be considered only after the contract has been awarded.

C. The 470 or 473 Aluminum shall be used only in conformance to the air quality legislation applicable at the location of use.

1.05 SURFACE PREPARATION AND APPLICATION DESCRIPTION

A. Substrate cleaning, surface preparation, coating application and dry film thickness shall be as specified and shall meet or exceed Rust-Oleum Corporationôs recommendations.

B. All application equipment shall be clean and maintained in proper working order in accordance with the equipment manufacturers' recommendations.

C. The 470 or 473 Aluminum shall be applied in accordance with the air and surface temperature limits and work areas shall be reasonably free of airborne dust during application and drying time.

1.06 PERFORMANCE REQUIREMENTS

A. The 470 or 473 Aluminum have the following physical properties and these are published on the Rust-Oleum Corporation 9100 System Technical Data Sheet.

	X-60 Primer	470 &473
Volume Solids	40-43%	37-39%
Recommended Dry Film Thickness (DFT)	1-2 mils	1-1½ mils
Practical Coverage (assumes 15% material loss)	270-585 sq ft/gal	200-530 sq ft/gal
VOC	450 g/l (3.75 lbs/gal)	<500 g/l (<4.2 lbs/gal)
Dry Time @ 70ºF/21ºC and 50% RH		
Tack Free	2-4 hours	2-4 hours
Handle	4-6 hours	5-9 hours
Recoat	24 hours	24 hours

1.07 QUALITY ASSURANCE

A. Applicator Qualifications:

1. Shall be knowledgeable in the proper installation of the 470 or 473 Aluminum and experienced in the application of solvent based alkyd enamel.

2. Shall provide a minimum of one (1) year workmanship warranty for the application of the 470 or 473 Aluminum.

3. A list of Certified Rust-Oleum Corporation Coating Applicators is available from Rust-Oleum Corporation.

B. Pre-, Mid-, and Post-Job Conferences shall be scheduled at discretion of the Project Engineer, Design Architect, or General Contractor.

1.08 SUBMITTALS

A. Product Data: 470 or 473 Aluminum application and related equipment information.

B. Applicator: If applicable, provide certified contractor documentation showing proof of familiarity with the 470 or 473 Aluminum.

1.09 DELIVERY STORAGE AND HANDLING

A. Deliver the 470 or 473 Aluminum on-site in Rust-Oleum Corporation's labeled, original, unopened containers.

B. All materials shall be stored inside or under cover at ambient temperature. Keep materials dry, protected from elemental damage, and protect from freezing.

1.10 PROJECT CONDITIONS

A. Protect adjacent work from damage and overspray during application of the 470 or 473 Aluminum.

1.11 WARRANTY

A. The technical data and suggestions of use are correct to the best of our knowledge, and offered in good faith. The statements of this specification do not constitute a warranty, expressed, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.

B. Special written project warranties may be issued on a request basis at the discretion of the Rust-Oleum Corporation Technical and Legal Departments and would not be contained within this specification document.

2. PRODUCTS

2.01 MANUFACTURER

A. The 470 or 473 Aluminum shall be obtained through a Rust-Oleum distributor. To request nearest distribution source contact Rust-Oleum Corporation.

2.02 MATERIALS

A. The 470 or 473 Aluminum is available in only an aluminum finish. Contact Rust-Oleum Corporation for availability of container size.

3. EXECUTION

3.01 JOB CONFERENCES

A. A pre-job conference shall be at the discretion of the architect, engineer or general contractor. Coating contractor, substrate installer and other trades whose work affects the application of the 470 or 473 Aluminum shall meet at the project site to review procedures and time schedule proposed for application of the 470 or 473 Aluminum and related work. Additional conferences are at the discretion of the architect, engineer, general contractor and/or owner.

3.02 SURFACE PREPARATION

A. All cleaning and surface preparations specified are minimums.

B. All surfaces to be coated shall be free of cracks, pits, fins, projections, or other imperfections that would interfere with the formation of a uniform, unbroken coating film. The coating contractor is to examine the substrate to determine if it is in satisfactory condition to receive the 470 or 473 Aluminum. Obtain coating contractor's written report listing conditions detrimental to performance of work in this specification. Do not proceed with the application of the 470 or 473 Aluminum until unsatisfactory conditions have been corrected.

C. All oil, grease, and chalking shall be completely removed with biodegradable degreasers prior to mechanical cleaning begins. (Rust-Oleum 3599 Cleaner Degreaser)

D. Surfaces of welds shall be scraped and ground as necessary to remove all slag and weld spatter.

E. At minimum, all steel surfaces shall be cleaned in accordance to SSPC-SP-3 Power Tool Cleaning.

F. Satisfactory inspection by the Owner, General Contractor, Project Engineer, at any point in the coating process does not relieve the contractor of ownership and responsibility with regard to application long term service life.

3.03 MIXING AND THINNING

A. MIXING

The 470 or 473 Aluminum shall be thoroughly mixed to uniform color prior to use.

B. THINNING

1. Thinning, if needed, shall be done with Rust-Oleum 333 Thinner or a Rust-Oleum recommended substitute solvent.
2. Thinning is generally not required for brush, roll application.
3. Thinning is not normally required for air atomized or HVLP spray. However, the 470 or 473 Aluminum can be thinned up to 10-20% by volume if needed.
4. Thin the 470 or 473 Aluminum up to 10% by volume for airless spray application.

3.04 APPLICATION

A. Weather Conditions

1. Apply when air and surface temperatures are between 32-100° F (0-38° C), the relative humidity is no greater than 85%, and surface temperature is at least 5° F (3° C) above the dew point.
2. The 470 or 473 Aluminum shall not be applied, except under shelter, during wet, damp, foggy, or windy weather. When necessary, the area to be coated should be sheltered by a temporary enclosure.

B. Coating Application

1. Edges, corners, seams, welds, bolts, nuts and patch repair areas shall be given a brushed spot coat of selected primer prior to full coat priming.
2. Apply two full coats of X-60 primer on an abrasive blast cleaned steel substrates.
3. The 470 or 473 Aluminum shall be recoated no sooner than overnight.
4. Sags, checks, blisters, skips, teardrops, or rolled edges shall not be accepted and shall be completely removed and recoated.

C. Protection of surfaces

1. The Coating Contractor shall be responsible for protecting all adjacent surfaces from spills, drips, overspray, or any other form of coating damage.
2. The coating contractor and its subcontractors shall be responsible for removing spots or repairing damaged surfaces to the satisfaction of the project engineer, design architect and/or owner.

3.05 CLEAN-UP

A. Clean-up shall be done to remove all spills, drips, overspray, or other unwanted coating from all surfaces not intended to be coated.

B. All used rags, brushes, roller covers, and other application related materials shall be removed from the work site and disposed in a proper manner and in accordance with local waste regulations.

C. All equipment, staging, ladders, and other contractor materials brought onto the jobsite by the contractor shall be remove at the conclusion of the job in a timely manner.

END OF SECTION