



MC-FerroClad™ Primer
APPLICATION
GUIDE

FOR DUCTILE IRON

1.0 PRODUCT STORAGE AND HANDLING

- 1.1 Wasser MC-FerroClad Primer should be stored in a covered shelter. Care should be taken to ensure that unused containers remain sealed and leftover, partial containers are properly resealed.
- 1.2 Storage temperature can range from 0°F to 100°F and should be kept constant. To prevent condensation from entering the coating the material temperature must be brought to 5°F above the dew point temperature before opening and agitating the material.
- 1.3 Because MC-FerroClad Primer reacts with atmospheric moisture, it is important to limit the time the container is open. Pour out what material is needed, then apply a solvent "float" of approximately 3 oz. - 6 oz. of Wasser MC-Thinner or MC-100 thinner over the top of the material before resealing the container.
- 1.4 If it is not possible or practical to reseal the container during spray application, pour a Wasser solvent float over the coating to prevent moisture intrusion. (See Section 1.3.)
- 1.5 If a skin forms on the surface of the coating in a new, sealed container or a resealed partial container, remove it by cutting the edge of the skin at the skin/container interface, and discard. If necessary filter the coating through a fine filter and proceed with the application. Agitate the remaining material until it's homogeneous, adding a float of MC-Thinner or MC-100 thinner.

2.0 MIXING AND THINNING

- 2.1 MC-FerroClad Primer is a single-component coating. There is no mixing of plural components however, the coating should be mixed using power agitation for 3 minutes or until it's completely homogeneous.

- 2.2 Do not use a mechanical paint shaker, and avoid repeated boxing.

- 2.3 Aged Wasser MC-FerroClad Primer (six months or older) may develop significant settling. Follow recommendations in Section 2.1, but increase agitation time.

- 2.4 Do not subject MC-FerroClad Primer to agitation during application. Continuous agitation can cause premature gelling. Once thoroughly mixed, the pigments will stay in suspension for up to 4 hours.

- 2.5 Thinning: Use only MC-Thinner or MC-Thinner 100. Make no exceptions, no substitutes, or assumptions about using other reducers. Most industrial solvents contain water, or alcohol. (A very small amount of water, alcohol or other hydroxyl bearing solvent can contaminate and destroy the moisture-cure reaction of MC-FerroClad Primer without any apparent indication or gelling. Substitutions may also jeopardize application and performance properties and will void any product warranty.) Consult Wasser Technical Service for thinning recommendations when Wasser moisture cure thinners are not available.

3.0 SUBSTRATE TYPES

- 3.1 Wasser MC-FerroClad Primer is a self-priming high performance coating. It has been specifically formulated for ductile iron, cast iron and gray iron substrates. (MC-FerroClad Primer can be topcoated with itself if necessary.)

- 3.2 All ductile iron surfaces to be coated with MC-FerroClad Primer shall not have any asphalt, cement or other coatings or substance applied previously.

4.0 SURFACE PREPARATION

4.1 Several publications and standards exist for the surface preparation of carbon steel surfaces. Examples include Steel Structures Painting Council (SSPC), National Association of Corrosion Engineers (NACE), and Swedish Surface Preparation Standards. Inherent metallurgical, manufacturing and processing differences preclude certain parts of these SSPC, NACE, and other surface preparation standards from being applied to ductile iron substrates.

Do not apply carbon steel surface preparation specifications (eg. SSPC, NACE, etc.) to ductile iron or iron substrates. Doing so may result in damage to the ductile iron surfaces and reduce coating effectiveness and longevity.

4.2 Prior to abrasive blasting all surfaces are to be inspected for oil, grease, etc. Any oil, grease, contaminant that can be removed by solvent(s) shall be solvent cleaned following the guidelines of SSPC-SP1 Solvent Cleaning or National Association of Pipe Fabricators (NAPF) Solvent Cleaning Standard 500-03-01. (If an asphalt-based coating has been previously applied contact Wasser.)

4.3 After proper solvent cleaning all surfaces shall be cleaned using sand or grit abrasive media. DO NOT OVERBLAST. Overblasting can result in a surface that is unsuitable for coating. (High nozzle velocities and/or excessive blast times can cause "blistering" and "slivering.")

4.4 For Atmospheric (Non-immersed) Applications: After proper solvent cleaning all surfaces shall be prepared using hand tools and/or power tools to remove loose annealing oxide, loose rust, loose mold coatings and other foreign matter. Annealing oxide, mold coating, and rust are considered adherent if they cannot be removed by lifting with dull putty knife. If power tools are used for surface preparation do not burnish the surface or use in such a manner to cause burrs or sharp edges.

Ensure surface is clean and visibly dry prior to primer application.

4.5 For Immersed Applications: After proper solvent cleaning all surfaces shall be cleaned using sand or grit abrasive media. DO NOT OVERBLAST. Overblasting can result in a surface that is unsuitable for any coating. (High nozzle velocities and/or excessive blast times can cause "blistering" or "slivering.")

4.6 Abrasive blast cleaning shall remove all rust, loose annealing oxides, etc. After all surfaces are struck by the blast media, tightly adherent annealing oxide, mold coating and rust staining may remain on the surface provided they cannot be removed by lifting with a dull putty knife.

4.7 Ensure surface is clean and visibly dry prior to primer application.

5.0 EQUIPMENT AND SET-UP

5.1 Inspect all air/liquid hoses for cracks, leaks, etc., and replace as necessary. New hoses should be used to eliminate potential clogging from previous materials.

5.2 Inspect the spray apparatus and its components. Insure spray guns are clean and properly functioning. Change or clean filters prior to use. Check for proper tips and tip sizes, and use a reversible spray tip:

<u>PRESSURE</u>	<u>TIP SIZE</u>
2400-2800	015-021

Check valves and gauges for proper operation, and replace as necessary. Adjust to proper pressure.

5.3 Flush Wasser moisture cure thinner through the system to clean the hose and flush out condensate. Never allow old thinner in the paint lines to mix with MC-FerroClad Primer.

5.4 Stage pails away from paint pump to prevent relief valve moisture from contaminating the product. Line a clean, empty pail with a 55-mesh screen, and tape the screen to the outside of the pail. Cut a 3" slit parallel to the pail top, to allow insertion of a siphon unit, placing it between the screen and pail wall. This measure minimizes potential plugging of the spray tips.

- 5.5 Follow all mixing instructions, and apply a Wasser solvent “float”, and place a cover over the pail.
- 5.6 Wasser MC-FerroClad Primer is supplied ready to mix and spray. Use standard production type spray equipment. Air supply must have effective moisture trap(s). Use air pressure at gun of 45-75 pounds. Use 15-20 pounds pot pressure. Do not agitate in pressure pot. Use Graco, Binks pumps or equivalent 28-40:1.

6.0 ROLLER OR BRUSH SET-UP

Use a natural fiber brush or a natural or synthetic fiber roller cover with a 1/4 or 3/8 inch nap, and a phenolic core. Pay special attention when brush-applying to avoid brush stroke valleys, which may produce holidays in the film. MC-Thinner 100 is the recommended thinner for brush and roll application when reduction is desired.

7.0 SYSTEM APPLICATION

- 7.1 **Prime Coat:** Apply MC-FerroClad Primer at the recommended Dry Film Thickness (DFT). Thinning is not normally required however, if necessary thin up to 10% with approved Wasser thinners to achieve desired application characteristics. A brush applied stripe coat is recommended for all nuts, bolts, weld seams, corners, joints, and edges cleaned to bare metal.
- 7.2 **PURQuik® Accelerator** is a 100% solids, proprietary additive designed to accelerate MC-FerroClad Primer when reduced cure and recoat times are desired. PURQuik® Accelerator comes premeasured in a 1 half-pint can (6.4 oz fill) for addition to a 1 gallon pail or premeasured in a 1 quart can (20 oz fill) for addition to a 3 gallon pail of material. Review the PURQuik® Product Guide for more details.

NOTE: Follow minimum recoat times as stated per coat at the recommended dry film thickness. Additional recoat time is required when films are applied in excess of the recommended range. As a guideline, at 70°F and RH of 60-90%, add 40 minutes per additional wet mil (or 1 hour per dry mil). Excessive films may

also cause poor adhesion, blistering, pinholing, and solvent entrapment and may require remedy. Consult your Wasser Technical Representative.

8.0 CLEAN-UP

- 8.1 Use MC-Thinner or MC-Thinner 100. If Wasser’s thinners are not available, use MEK, MIBK, Xylene, a 50:50 blend of Xylene and MEK or MIBK, or acetone for clean up only. Do not add unauthorized solvents to MC-FerroClad Primer.
- 8.2 Always flush equipment, hoses and tips clean after use. Remaining coating residue will cure and become insoluble. Thoroughly clean brushes and rollers after use. Submerging used brushes and rollers in solvent overnight will not prevent the coating from curing. Avoid contact with skin or clothing. Any coating not removed within 15 minutes will begin to cure and become difficult to remove.

9.0 GOOD PRACTICES

- 9.1 Always prevent rain, mist, or any other form of moisture from falling directly into open can.
- 9.2 It is not necessary or required to keep Wasser MC-FerroClad Primer under constant agitation while spraying. Prolonged agitation can introduce moisture into the coating.
- 9.3 Avoid opening and agitating if the paint temperature is below the dew point temperature. To avoid potential, gelling, warm the paint to match the ambient temperature if possible.
- 9.4 Always pour a Wasser solvent “float” over the exposed material in the can when spraying or over any remaining material when resealing for storage.
- 9.5 Use only Wasser MC-Thinner or MC-Thinner 100.