Technical Data Sheet

MCU ZINC HH®

Product and Technology Description

MCU-Zinc HH is a heat resistant, single component, primer coating for use up to 420 °C. MCU-Zinc HH is a highly effective zinc rich primer for maintenance and new construction, where the longest possible life is required in high temperature environments.

Can be used as primer under MCU-Aluminium SX HH and MCU-Topcoat SX HH.

Technology Features

1 component
No pot life limitations
No induction time restrictions
Can be applied in 30% - 85% relative humidity
Suitable for use in temperatures up to 420°C
No cracking, flaking, or peeling
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Good chemical resistance
Excellent protection against corrosion
Excellent adhesion to most substrates

Areas of Use

Substrates:
Ferrous metals – mild steel / cast iron
Galvanised metals

Possible applications:
Chimneys
Steel ovens
Pipes / valves
Heat exchangers etc

Specifications

Resin type:	Modified ethyl silicate
Pigment type:	Zinc
Sheen:	Flat
Colours:	Grey
Volume solids:	50.0% ± 2.0%
VOC:	420 g/l

Theoretical coverage: 25 µm DFT: 20.0 m2/l

Recommended film thickness:

Wet:	140 - 160 µm -no thinners
Dry:	70 - 80 µm

Shipping

Shelf life:	15 months from date of manufacture if stored unopened between 5 °C and 25 °C in a dry cool place
Flash point:	36.5 °C
Density:	2.65 ± 0.12 kg/l
UN proper shipping name:	UN 1263, PAINT, Class 3, Packaging Group III

Drying Times and Temperatures

At 60 % Relative Humidity*	Tack Free	Recoat Min - Max
15 °C	60 minutes	16 hours - 7 days
22°C	30 minutes	16 hours - 7 days

* Forced drying 80 °C -30 minutes minimum

Surface Preparation

Ferrous Metal
Use SSPC-SP1 solvent cleaning and/or MCU-Ecodegreaser to remove oil and grease or other contaminants prior to surface preparation.

Prepare surfaces for non-immersion or atmospheric service projects by ISO 8504-2 methods to ISO 8501-1 SSPC-SP6/ NACE No.3 (Sa 2) Commercial Blast Clean finish, visual standard SSPC vis 1, or by SSPC 12/Nace 5.0 High or Ultra High pressure water jetting to WJ 4M, visual standard SSPC vis 4/Nace vis 7, or by SSPC-TR2/Nace 6G198 Wet abrasive blast cleaning methods to WAB 6M, visual standard SSPC vis 5/Nace vis 9 Wet commercial blast clean finish.

For minimum surface preparation, use conscientious hand and power tool cleaning methods in accordance with ISO 8504-3/ SSPC-SP 2 and 3 to remove corrosion and loose or failing paint to ISO 8501-1/SSPC-SP2 and SSPC-SP3 (St 2), visual standard SSPC vis 3. Feather the edges of sound, existing paint back to a firm edge.

Minimum required surface profile - 25-50 µm.

Corten Steel
Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods. Supplement SSPC-SP 12 LPWC with ISO 8504-3/SSPC-SP2 or SSPC-SP3 hand / power tool cleaning where areas show excessive corrosion. Use SSPC-SP1 Solvent Cleaning or MCU-Ecodegreaser to remove oil and grease.

Galvanised Metal
Prepare surfaces using SSPC-SP1 Solvent Cleaning and SSPC-SP12/NACE No.5 Low Pressure Water Cleaning method or MCU-Ecocleaner to remove surface contamination. Supplement weathered galvanised surface preparation with ISO 8504-3/SSPC-SP2 and SSPC-SP3 Hand and Power Tool Cleaning to remove excessive corrosion and impart surface profile on bare metal. Supplement new galvanised surface cleaning with mechanical abrasion or MCU-Ecocleaner to impart surface profile to support mechanical adhesion.

Best Practice
Surfaces must be dry, clean, dull, and free from dirt, grease, oil, rust, mill scale, salts or any other surface contaminants that interfere with adhesion.

Ensure welds, repair areas, joints, and surface defects exposed by surface preparation are properly cleaned and treated prior to coating application.

Areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard

Consult the referenced standards, SSPC-PA1 and your MCU-Coatings Representative for additional information.

Application

MCU-Zinc HH can be applied by brush, roll, airless spray and conventional spray methods.

Mixing
Material temperature must be 3 °C above the dew point before opening and agitating.

Power mix thoroughly prior to application.

Do not keep under constant agitation.

Apply a solvent float over the material to prevent the product from curing in the pail.

Reducer
Typically not required. If necessary, thin up to 10% with MCU-Thinner AHH - see Technical Data Sheet for additional information.

Brush/Roller

Brush:	Natural fibre
Roller:	Natural or synthetic fibre cover
Nap:	5 to 10 mm (higher nap, thicker coat)
Core:	Phenolic

Airless Spray

Pump Ratio:	28-40 : 1
Pressure:	140-200 bar (2030 – 2900 psi)
Hose:	5 to 10 mm (1/4" to 3/8")
Tip Size:	0.011 - 0.017
Filter Size:	60 mesh (250 µm)

Conventional Spray

Fluid Nozzle:	E Fluid Tip
Air Cap:	704 or 765
Atomising Air:	3.1 – 5.2 bar (44 – 75 psi)
Fluid Pressure:	1 – 1.4 bar (14 – 20 psi)
Hose:	12 mm ID; Max 16 metres

Clean-up
MCU-Thinner AHH. If MCU-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 unauthorised solvents to MCU-Coatings.

Application Conditions

Temperature: 5 °C to 50 °C
This temperature range should be achieved for ambient, surface and material temperature. Substrate must be visibly dry and 3 ºC above dew point.

Relative humidity: minimum 30% maximum 85%

Storage

Store off the ground in a dry, protected area in temperature between 5 ºC to 25 °C. Containers must be kept sealed when not in use. Use a solvent float to reseal partially used containers.

Safety Precautions
This product is for industrial and professional use only. Consult the Safety Data Sheet.

Warranty

MCU-Coatings warrants its products to be free from defects in materials. MCU-Coatings sole obligation, and Buyer's exclusive remedy in connection with the products, shall be limited, at MCU-Coatings' option, is to either replace the products not conforming with this warranty, or to credit the Buyer's account with the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to MCU-Coatings in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf-life, or six months from the delivery date, whichever is earlier. Buyer's failure to notify MCU-Coatings of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

MCU-Coatings makes no other warranties concerning the products. No other warranties, whether expressed, implied or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall MCU-Coatings be liable for consequential or incidental damages.

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