

XIM SPECIFICATION NO. 1002

DATE : April 26, 2005

UPDATED : April 26 , 2005

PRIMING AND PAINTING METAL ROOFS

APPLICABLE SURFACES:

Steel, Galvanized Steel, Aluminum, Factory Painted Aluminum and Steel (Alkyd Enamels, Silicon Alkyds, Porcelain Coatings, Fluorocarbon Coatings such as Kynar®)

BACKGROUND:

Construction style must be considered before starting the job. XIM bonding primers are **not for flat roofs where standing water can accumulate**. The style and slope of the roof can cause difficulties when cleaning, prepping and painting. Styles such as Standing Seam, Overlapping Panel, etc can trap dirt and debris, ice and snow. These areas cause problems with cleaning for paint preparation. They also cause problems with adhesion and durability when ice and moisture can be trapped for long periods of time. Areas around vents, fans, air conditioners and other equipment create problems with dirt and grime and, therefore, are difficult to clean adequately for painting. Also, overhangs, abutments and all drip lines are areas where moisture will accumulate and eventually cause problems. An adverse environment (exterior exposure, high moisture, humidity, changes in temperature, etc.) will shorten the life of the coating. Paint failures on these types of surfaces generally start at edges or paint breaks where moisture can undercut the paint film.

PRODUCTS:

Primers:

- 400W White Quick Dry, Solvent Based Bonding Primer (Product No. 1102)
- 400W ES Solvent Based Bonding Primer (Product No. 1144)
- 400 Clear Quick Dry, Solvent Based Bonding Primer (Product No. 1101)
- 100 Clear, Solvent Based Bonding Primer (Product No. 3101)
- 360 Gray Rust Inhibiting Primer (Product No. 2122)
- Corrosion Control Acrylic Primer (Product No 1147,1149,1150)
- Advanced Technology UMA brand® White Water Based Bonding Primer (Product No. 1105)
- Advanced Technology UMA brand® Tintable Water Based Bonding Primer (Product No.1106)
- Ceramic and Porcelain 2-Component, Solvent Based, Epoxy Primer (Product No. 4203)

Top Coat Paints:

EXTERIOR -Semi-Gloss or Gloss Alkyds, Semi-Gloss 100% Acrylic Latex, Industrial Enamels, urethane paints. (Check the top coat – primer compatibility chart below)
(Top coats must have excellent gloss and color retention. They should have excellent “touch-up” characteristics since some maintenance and touch-up will be required each year.)

SURFACE PREPARATION:

The surface must be clean and free from dirt, grease, oil, wax, soap residue, old paint and other contaminants. Clean by power washing with a strong detergent or by washing with an abrasive detergent and abrasive pad. Rinse completely and allow to dry. Areas that are prone to grease and oil contamination should be solvent cleaned with XIM GON Prep Cleaner or Xylene. For best results dull the surface by scuff sanding using 325 grit silicon carbide sand paper. Make sure to remove all old caulk before painting and to re-caulk all edges and paint breaks after painting. **Be careful of cleaners that leave a residue. A residue will prevent the primer from sticking to your substrate.

APPLICATION:

The primers can be applied by brush, roll or spray. Follow the application instructions for the various primers as outlined on their Data Sheets and Labels. Generally from 1.0 to 1.50 mils is the desired dry film thickness for the primers.

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CONSIDERATIONS:

It is strongly recommended that a STA (Standard Test Area) be done. The STA must include the exact type and degree of cleaning, dulling, priming and painting that is to be done for the entire job. The testing must also include subjecting the test patch to the conditions that the roof will have to hold up to, ie. heat, sun, moisture, etc. If possible run the test over the winter to expose the test patch to the most extreme conditions. If there is not enough time for an adequate test period, plastic sheeting/taped moisture test.

Since paint failures generally occur where there is an edge or paint break, caulk all edges to prevent moisture from undercutting the paint film. Double coat all drip lines and areas that need extra protection.

Understand that once painted, routine maintenance and repair touch-up will be required based on the conditions of use and the environment.

SELECTION CHART

4 = BEST 3 = EXCELLENT 2 = GOOD 1 = NOT RECOMMENDED

XIM PRODUCT →	400W WHITE	400W ES	400 CLEAR	UMA WHITE	UMA TINTABLE	100 CLEAR	360 GRAY	CER. & PORC.	Corrosion Control
PRODUCT NUMBER	1102	1144	1101	1105	1106	3101	2122	4203	1147
Bare Steel	2	2	2	1	1	2	4	1	4
Galvanized Steel	2	2	2	3	3	2	4	1	4
Steel (Factory Coated)									
Alkyd Enamel	4	4	4	4	4	4	3	3	3
Siliconized Alkyd Enamel	2	2	2	TEST	TEST	4	1	1	1
Porcelain Coating	2	3	2	2	2	2	1	4	1
Kynar® (Fluorocarbon)	2	2	2	4	4	2	1	1	1
Other	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST
Tin Plate	4	4	4	4	4	4	1	1	3
Bare Aluminum	4	4	4	4	4	4	1	1	3
Copper	4	4	4	4	4	4	1	1	3
Other	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST

TOP-COAT COMPATIBILITY CHART

XIM PRODUCT →	400W WHITE	400W ES	400 CLEAR	UMA WHITE	UMA TINTABLE	100 CLEAR	360 GRAY	CER. & PORC.	Corrosion Control
PRODUCT NUMBER	1102	1144	1101	1105	1106	3101	2122	4203	1147
Alkyd Enamel	OK	OK	OK	OK	OK	OK	OK	OK	OK
Siliconized Alkyd Enamel	OK	OK	OK	OK	OK	OK	OK	OK	OK
Urethane (1 Part)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Urethane (2 Part)	NR	OK	NR	OK	OK	OK	OK	OK	OK
Latex	OK	OK	NR	OK	OK	NR	OK	NR	OK
Lacquer	NR	NR	NR	OK	OK	NR	NR	OK	OK

Note: Follow instructions on the individual product Data Sheets.

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