| Conversion Table                        | 2 |
| Three Course                           | 3 |
| Mineral Surface Capsheet Roof          | 4 |
| Metal Roofs                            | 5 |
| Plywood Roofs                          | 6 |
| Concrete Roofs                         | 7 |
| APP Smooth Modified Bitumen Roofs      | 8 |
| Asphalt Emulsion Roofs                 | 9 |
| Asphalt Flood Coated Roof              | 10|
| Smooth Surface Coated Roofs            | 11|
| Foam Roofs with Old Coating            | 12|
| New Foam Roofs Without Coating         | 13|
| CPE, EPDM, PVC, PIB, and Hypalon Roofs | 14|
| Reinforcement Using Single Layer of Polyester Fabric | 15|
| Reinforcement Using Double Layer of Polyester Fabric | 16|
| Application Instruction Diagrams       | 17-20|
| Elastomeric Roof Coating What Makes Galacti-Kote® Different? | 21|
| Weather Conditions For Applying a Water Based Elastomeric Roof Coating | 22-23|
| Ty-Zon Primer Product Data and Application Instructions | 24|
| Metal Roofs With Seams, Joints and Fasteners | 25|
| Concrete Technical Bulletin            | 26|
| Rust On Metal Using Alkyd Primers      | 27|
| Rust On Metal Using Water Reducible Primers | 28|
| Three Light In Solar Energy            | 29|
| Galacti-Kote® Product Data             | 30|
Conversion Table

<table>
<thead>
<tr>
<th>Wet Mils</th>
<th>Dry Mils</th>
<th>Gallons/100 Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>25</td>
<td>2 ½</td>
</tr>
<tr>
<td>36</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>27</td>
<td>15</td>
<td>1 ½</td>
</tr>
<tr>
<td>18</td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>

**Note**
Surfaces that are porous may absorb some of the material thus, requiring an increase of wet mils in order to attain the desirable dry mil thickness.

**Caution**
*Do Not* apply if surface temperature is 55°F or lower.
*Do Not* apply if the temperature is expected to drop below 35°F within a 48-hour period.
*Do Not* apply if rain is forecasted within a 24-hour period.
*Do Not* use wet or a combination of wet/dry roofing cement where roofing cement is needed.

**Incidental Ponding Water**
Water that remains on the roof for more than 72 hours (3 days) under dry weather conditions (77°F, 50% relative humidity) is considered “Incidental Ponding Water.” If water remains for a longer period we recommend installing internal drains.

**Paint Roller Application**
With most paint roller applications, a two-coat method is recommended to provide a uniform dry film finish. A “cross hatch” application will help prevent the likelihood of “pinholing.”
Three Course

In order to qualify for a roof to be water tight, three coursing is required around drains, jacks, vents and all protrusions on the roof. Three Coursing with Galacti-Kote® and polyester fabric should also be used for general repairs of roof membrane.

Preparation
Surfaces around drains, jacks, vents and all protrusions on the roof must be properly cleaned before any application. Power wash the surface with clear water or scrub with clear water and a brush.

Application
Three course around drains, jacks, vents, all protrusions and general roof repairs with Galacti-Kote® and TIETEX™ T-272 polyester fabric.

Step 1 Base Coat & Polyester Fabric
Apply approximately 27 wet mils (1½ gallons per 100 sq. ft.) of product. While wet, embed the polyester fabric into Galacti-Kote®. The polyester TIETEX™ T-272 roofing fabric should be used.

Step 2 Wait
For best results, after applying the base coat and polyester fabric, wait a minimum of 4 hours in 77°F and 50% relative humidity before applying another 27 wet mils. Longer time will be needed in cooler weather and/or higher humidity.

Step 3 Top Coat
Apply a topcoat of 27 wet mils (1½ gallons per 100 sq. ft.). When “Three Course” is dry the total dry film thickness should not be less than 30 mils.

Note Field of Roof Coating
Before applying field of the roof coating over the Three Course area, allow at least 24 hours for the Three Course to cure in 77°F and 50% relative humidity weather. Longer curing time may be necessary in cooler weather and/or higher humidity.
Mineral Surface Capsheet Roof

**Preparation**
All surfaces must be properly cleaned before any application of coating. Power wash the roof's surface with clear water. If you have a new roof, sweep or use a backpack blower.

All repairs must be made before cleaning is done to insure no interior water damage. Also, refer to “Three Course” Application Instructions (page 3)

**Application**
Apply Galacti-Kote® at a minimum rate of 45 mils thickness (2 ½ gallons per 100sq. ft.) drying to 25 mils.

For low areas that have a potential for Incidental Ponding Water apply an extra 18 wet mils of product (1 gallon per 100 sq. ft.). Roof surfaces with the potential of Incidental Ponding Water will require a dry film thickness of not less than 35 mils. Refer to the definition of “Incidental Ponding Water” (page 2).

**Note**
If the cap sheet is aged, dried out and very porous, it may require additional coating. Elastoclad can be used as a filler coat prior to applying 2 ½ gallons per 100 square feet of Galacti-Kote®.
Metal Roofs

Preparation
All surfaces must be properly cleaned before any application. Power wash with clear water.

If rust exists, wire brush to remove scaling and flaking. For a more detailed explanation on how to treat corrosion before applying elastomeric coating, refer to Galacti-Kote® Technical Bulletin “Rust On Metal.” (page 27 and 38)

If application is to be made on new metal roof, remove all oils that may exist. New galvanized metal should be washed and etched with a suitable phosphoric acid based product, rinsed with clear water and allowed to dry.

To insure a watertight roof, refer to Technical Bulletin “Metal Roofs With Seams, Joints And Fastener Heads.” (page 25)

Also, refer to Application Instruction “Three Course” (page 3)

Application
Apply a uniform coat of Galacti-Kote® at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.) drying to 15 mils.

Note
Corrugated metal roofs may require 2 to 2 ½ gallons per 10’X10’ area to obtain a uniform 15 dry mil coverage.
Plywood Roofs

Plywood shall be exterior grade (top surface preferably “A” grade) and shall be designed and fabricated in accordance with the recommendations of the American Plywood Association, minimum thickness ½ inch.

Preparation
All plywood sheets shall be bearing on rafters at each end and be securely nailed. A plywood deck is not satisfactory if plywood sheets bend under an average man’s weight.

All nails shall be galvanized and nail heads shall be flush or slightly recessed into plywood. Screw down fasteners may be used in place of galvanized nails.

There shall not be any knotholes in the plywood. If there are, knotholes must be filled with appropriate exterior grade wood filler or bondo.

Before application make certain all dirt, saw dust, oils and wax are completely removed. Do not power wash, rather sweep clean and/or use backpack blower. Plywood decks must be kept dry prior to coating.

Before Applying Coating On Field Of Roof
Caulk all joints where the plywood butts together. Use Urethane Caulking only. Areas where high stress is anticipated such as ridges, valleys and where field of roof and wall meet, additional reinforcement may be needed prior to proceeding with the Application Instructions as outlined below. Refer to Application Instructions (pages 15 and 16). Three Course around all roof penetrations and HVAC equipment, refer to Application Instructions (page 3).

Application
Apply Galacti-Kote® at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.). Embed TIETEX™T-272 Polyester Roof Fabric into the wet Galacti-Kote®. Allow for a 3” overlap of polyester fabric on widths and lengths. After Galacti-Kote® has dried, apply additional Galacti-Kote® at a minimum rate of 54 wet mils (3 gallons per 100 sq. ft.) This process will probably require a two-coat application. Total dry mil thickness for this system should not be less than 45 mils. In areas where high stress is anticipated, dry mil thickness should be greater than 45 mils.

Note
When coating is completely dry, no polyester fabric should be telegraphing through dried coating.
Concrete Roofs

New concrete requires a minimum waiting period of 28 days curing time prior to applying Ty-Zon Primer and Galacti-Kote®.

Preparation
All surfaces must be properly cleaned before any application. Power wash with clear water and let dry completely before application. If concrete has efflorescence remove it by washing with 10% solution of muriatic acid, rinse thoroughly and allow drying. The best way to rinse off and neutralize muriatic acid is to insert ammonia through a pressure washer. Assure all joints are water tight before application. Exterior caulking or weather stripping can be used. For additional information regarding moisture in concrete refer to Technical Bulletin “Concrete.”

Prime the concrete with Ty-Zon Primer prior to applying Galacti-Kote®. Depending on how porous the concrete is, apply Ty-Zon Primer at a rate of 200 to 300 square feet per gallon. Refer to Technical Bulletin “Ty-Zon Primer.”

Also, refer to “Three Course” Application Instructions (page 3).

Application
Apply Galacti-Kote® at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.) Embed TIETEX™ T-272 Polyester Roof Fabric into the wet Galacti-Kote®. Allow for a 3” overlap of polyester fabric on widths and lengths.

After Galacti-Kote® has dried, apply additional Galacti-Kote® at a minimum rate of 54 wet mils (3 gallons per 100 sq. ft.). This process will probably require a two-coat application.

Total dry film thickness for this system should not be less than 45 mils.

Note
When coating is completely dry, no polyester fabric should be telegraphing through dried coating.
APP Smooth Modified Bitumen Roofs

Preparation
Wait at least 48 hours after application of APP (Atactic Polypropylene) smooth modified bitumen roof membrane before applying Ty-Zon Primer and Galacti-Kote®.

All surfaces must be properly cleaned before any application. Roof repairs must be made before cleaning is done to insure no interior water damage. Power wash the roof’s surface with clear water.

Prime the entire roof with Ty-Zon Primer at a rate of 300 square feet coverage per gallon. Before priming with Ty-Zon Primer make sure surface is clean and dry. Refer to Product Data “Ty-Zon Primer” (page 24) for instructions on preparing and applying this primer.

Ty-Zon Primer does not need to be completely dry prior to starting application of Galacti-Kote®. It can be slightly tacky.

After the application of Ty-Zon Primer refer to “Three Course” Application Instructions (page 3).

Application
In hot sunny weather it is best to apply a “mist” coat of Galacti-Kote® at a minimum rate of 9 wet mils thickness (1/2 gallon per 100 sq. ft.). Let dry completely, normally two hours or less.

Apply a second coat at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.).

Total dry film thickness including “mist” coat should not be less than 20 mils. This will require a minimum of 2 gallons of Galacti-Kote® per 100 square feet.
Asphalt Emulsion Roofs

Preparation
All surfaces must be properly cleaned before any application. Repairs to roof membrane must be made prior to coating.

Application Of Asphalt Emulsion (Fibered or Non-Fibered)
Over Mineral Surface Capsheet, apply a minimum of 6 gallons per 100 square feet for a dry mil thickness of not less than 50 mils.

Over gravel roof with all the gravel removed, apply a minimum of 9 gallons per 100 square feet for a dry mil thickness of not less than 75 mils.

Wait at least 24 hours after application of Asphalt Emulsion before applying Ty-Zon Primer and Galacti-Kote®.

Prime the entire roof with Ty-Zon Primer at a coverage rate of 300 square feet per gallon. Before priming with Ty-Zon Primer make sure surface is clean and dry. Refer to Product Data “Ty-Zon Primer” (page 24) for instructions on preparing and applying this primer.

Ty-Zon Primer does not need to be completely dry prior to starting application of Galacti-Kote®. It can be slightly tacky.

After application of Ty-Zon Primer refer to “Three Course” Application Instructions (page 3).

Application
In hot sunny weather it is best to apply a “mist” coat of Galacti-Kote® at a minimum rate of 9 mils thickness (1/2 gallon per 100 square feet). Let dry completely, normally two hours or less.

Apply a second coat at a minimum rate of 27 mils thickness (1 ½ gallons per 100 sq. ft.).

Total dry film thickness including “mist” coat should not be less than 20 mils. This will require a minimum of 2 gallons of Galacti-Kote® per 100 square feet.
Asphalt Flood Coated Roofs

For newly applied asphalt flood coated roofs, wait a minimum of 30 days before applying Galacti-Kote®.

Preparation
Roof repairs must be made before cleaning is done to insure no interior water damage.

All surfaces must be properly cleaned before any application. Follow the cleaning procedure below:

- **Step 1** Power wash the roof’s surface with clear water.
- **Step 2** While roof is still wet, thoroughly scrub roof with Trisodium Phosphate (T.S.P.) diluted with water.
- **Step 3** After area has been thoroughly cleansed, rinse completely with clear water.

Refer to Application Instruction “Three Course” (page 3)

Application
In hot sunny weather it is best to apply a “mist” coat of Galacti-Kote® at a minimum rate of 9 wet mils thickness (½ gallon per 100 square feet). Let dry completely, normally two hours or less.

Apply a second coat at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.).

Total dry film thickness including “mist” coat should not be less than 20 mils. This will require a minimum of 2 gallons of Galacti-Kote® per 100 square feet.
Smooth Surface Coated Roofs

**Preparation**
All repairs must be made before cleaning is done to insure no interior water damage.

All surfaces must be properly cleaned before any application. Power wash the roof’s surface removing any of the existing coating that is loose and flaking.

Refer to Application Instruction “Three Course” (page 3).

**Application**
Apply Galacti-Kote® at a minimum rate of 36 wet mils thickness (2 gallons per 100 sq. ft.) for a dry film thickness of 20 mils.

**Note**
If re-coating over a previously coated corrugated metal roof more than 3 gallons per 100 square feet may be needed. Depending on size of corrugation, 2 ½ gallons per 100 square feet may be need to attain a uniform dry film thickness of 20 mils.

Low areas that have a potential of Incidental Ponding Water apply an extra 18 wet mils of product (1 gallon per 100 sq. ft.). Roof surface with potential of Incidental Ponding Water will have a minimum dry film thickness of 30 mils. Refer to the definition of “Incidental Ponding Water” (page 2).
Foam Roofs With Old Coating

**Preparation**
All repairs must be made before cleaning is done to insure no interior water damage.

Where old coating has been torn away, exposed foam must be wire brushed to remove oxidized foam. Remove any of the existing coating that is loose and flaking.

Prime exposed foam with two gallons per 100 square feet of Galacti-Kote®. Let all primed areas thoroughly dry at least 24 hours. More time may be needed if daytime temperatures are below 77°F.

All surfaces must be properly cleaned before application. Power wash the roof's surface with clear water.

Refer to Application Instructions “Three Course” (page 3).

**Application**
Apply Galacti-Kote® at a minimum thickness of 36 wet mils (2 gallons per 100 sq. ft.) for a dry film thickness of 20 mils.

Low areas that have a potential of Incidental Ponding Water apply an extra 18 wet mils of product (1 gallon per 100 sq. ft.). Roof surface with potential of Incidental Ponding Water will have a minimum dry film thickness of 30 mils. Refer to the definition of “Incidental Ponding Water” (page 2).
New Foam Roofs Without Coating

Preparation
Before application make certain all dirt, dust and oils are completely removed. Do not power wash, instead sweep clean and/or use backpack blower. Foam deck must be kept dry prior to coating.

Application
Prime exposed foam with 2 gallons per 100 square feet of Elastoclad. Let all primed areas thoroughly dry.

Refer to Application instruction “Three Course” (page 3).

Apply Galacti-Kote® at a minimum thickness of 36 wet mils (2 gallons per 100 sq. ft.) for a dry film thickness of 20 mils.

Low areas that have a potential of Incidental Ponding Water require an additional 18 wet mils of product (1 gallon per 100 sq. ft.). The roof surface with potential of Incidental Ponding Water must have a minimum dry film thickness of 30 mils of Galacti-Kote®. Refer to the definition of “Incidental Ponding Water” (page 2).
Rubber Roofing
CPE, EPDM, PVC, PIB And Hypalon Roofs

As there is a wide range of CPE (Chlorinated Polyethylene), EPDM (Ethylene Propylene Diene Monomer), PVC (Poly Vinyl Chloride), PIB (Poly Iso Butylene) And Hypalon roofs on the market, do a test patch, one with Ty-Zon Primer and one without. Wait 2-4 weeks then check for adhesion.

Preparation
Roof repairs must be made before cleaning is done to insure no interior water damage.

All surfaces must be properly cleaned before any application. Follow the cleaning procedure below:

- **Step 1** Power wash the roof’s surface with clear water.
- **Step 2** While roof is still wet thoroughly scrub roof with Trisodium Phosphate (T.S.P.) diluted with water.
- **Step 3** After area has been thoroughly cleansed, rinse completely with clear water.

After the roof surface is clean and dry, prime the entire roof with Ty-Zon Primer at a rate of 300 square feet coverage per gallon. Refer to Product Data “Ty-Zon Primer” for instructions on preparing and applying this primer. Ty-Zon Primer does not need to be completely dry prior to starting application of Galacti-Kote®. It can be slightly tacky.

After the application of Ty-Zon Primer, refer to “Three Course” Application Instructions (page 3).

Application
In hot sunny weather it is best to apply a “mist” coat of Galacti-Kote® at a minimum rate of 9 wet mils thickness (1/2 gallon per 100 square feet). Let dry completely, normally two hours or less.

Apply a second coat at a minimum rate of 27 wet mils thickness (1 ½ gallons per 100 sq. ft.).

Total dry film thickness including “mist” coat should not be less than 20 mils. This will require a minimum of 2 gallons of Galacti-Kote® per 100 square feet.
Reinforcement Using Single Layer Of Polyester Fabric

This method of application is used prior to applying the normal amount of coating as prescribed in Application Instructions for a specific roof surface. It can be used to help reinforce high stress areas such as ridges, valleys and where walls and roof meet.

Preparation
All surfaces must be properly cleaned before any application.

Application
Step 1 Base Coat & Polyester Fabric
Apply approximately 27 wet mils of Galacti-Kote® (1 ½ gallons per 100 sq. ft.)
While wet, embed polyester fabric in Galacti-Kote®. The polyester roofing fabric, TIETEX™ T-272 should be used.

Step 2 Wait
For best results, after applying the base coat and polyester fabric, wait a Minimum of 4 hours in 77°F and 50% relative humidity before going to Step # 3.
Longer time will be needed in cooler weather and/or higher humidity.

Step 3 Top Coat
Apply a topcoat of 27 wet mils (1 ½ gallons per 100 sq. ft.). When topcoat is dry, the total dry film thickness should not be less than 30 mils.

Note Field Of Roof Coating
Before applying field of the roof coating over the reinforced area allow at least 24 hours drying time.
Reinforcement Using Double Layer of Polyester Fabric

This method of application is used prior to applying the normal amount of coating as prescribed in Application Instructions for a specific roof surface. It can be used to help reinforce high stress areas such as ridges, valleys and where walls and roof meet. Also, this double layer of polyester fabric system can be used to repair field of roof where roof membrane is deteriorating.

Preparation
All surfaces must be properly cleaned before any application.

Application

Step 1 Base Coat & Polyester Fabric
Apply approximately 27 wet mils of \textit{Galacti-Kote®} (1½ gallons per 100 sq. Ft.). While wet, embed polyester fabric in \textit{Galacti-Kote®}. The polyester roofing fabric, TIETEX™ T-272 should be used.

Step 2 Wait
For best results, after applying the base coat and polyester fabric, wait a minimum of 4 hours in 77°F and 50% relative humidity before going to Step #3. Longer time will be needed in cooler weather and/or higher humidity.

Step 3 Top Coat
Apply a topcoat of 27 wet mils (1½ gallons per 100 sq. ft.) When topcoat is dry, the total dry film thickness should not be less than 30 mils.

Step 4 Repeat Step 1
Step 5 Repeat Step 2
Step 6 Repeat Step 3
Total dry mil thickness should not be less than 60 mils. Use “Cross Hatch Method”; apply polyester fabric running at a 90 angle from the first layer of the fabric.

Note
Field Of Roof Coating
Before applying field of the roof coating over the reinforced area allow at least 24 hours drying time.
NOTE: For recommended wet mils refer to “Three Course” Instructions (page 3)

NOTE: Remove the oil film on new metal with acid or acetone.

Etch metal Surface by scratching it with medium to course (40 to 80 grit) sandpaper.
NOTE: For recommended wet mils refer to “Three Course” Instructions (page 3)
NOTE: For recommended wet mils refer to “ThreeCourse” instructions (page 3).
NOTE: For recommended wet mils refer to “Three Course” Instructions (page 3)
Elastomeric Roof Coating
What Makes Galacti-Kote® Different?

**High Concentration of Resins**

Most elastomeric roof coatings consist of one or two polymers (co-polymer).

**Galacti-Kote®** elastomeric coating incorporates the highest quality resins. It is a modified acrylic coating made from a blend of styrene co-polymers (2) with an acrylic emulsion ter-polymer (3) for a total of five (5) different polymers.

With a high concentration of resins, this coating will remain flexible without deteriorating or cracking. In other products that use clay and other fillers the results differ drastically.

**KEVLAR® Fibers**

To increase tensile strength and durability, **Galacti-Kote®** incorporates DuPont™ KEVLAR® Aramid Fibers in its coating; thus the name "Fibered" Elastomeric Coating.

**Ceramics**

For a bright and highly reflective capability as well as insulating value, the addition of space age ceramics has been added. They serve much the same purpose that ceramic tiles do on space shuttles.

This space age technology of incorporating ceramics into our coating gave birth to the name “**Galacti-Kote®**”.
Weather Conditions For Applying A Water Based Elastomeric Roof Coating

When daytime temperatures range from 75°F-100°F and relative humidity (R.H.) is 50% or less, you can expect a water based elastomeric roof coating such as Galacti-Kote® applied at approximately 40-45 wet mils to cure within three days.

It is very important that the coating has cured before being subjected to inclement weather.

Longer curing time than three days may be needed if either the daytime temperatures fall below 75°F, relative humidity exceeds 50% and/or wet mil thickness is greater than approximately 40-45 wet mils.

As the temperature increases beyond 75°F and relative humidity remains at 50% or less curing time may decrease from three days to as low as one day.

Moisture from early morning dew, high relative humidity such as fog and of course precipitation combined with daytime temperatures falling well below 75°F will prevent the coating from properly curing.

For Example: Fall and winter months with daytime temperatures in the 50’s (°F), heavy moisture from dew in the morning, overcast skies combined with occasional fog will actually dilute the coating thus inhibiting its curing process.

Instead of the moisture within the coating evaporating out into the atmosphere thus allowing the coating to properly cure. It will take in moisture preventing the coating from curing and setting up. The results can be very disappointing.
Weather Conditions For Applying
A Water Based Elastomeric Roof Coating
(Continued)

Below is a graph to help guide you in determining how long you should expect this coating to set up and cure given certain weather conditions:

Assume:

a) ● Wet mil thickness 40-45 mils.
b) Relative humidity 50% or less.
c) X Wet mil thickness 27 mils.

Daytime Temperatures

110° F

100° F X

85° F X

75° F X

65° F X

Curing Time in Days 1 2 3 4 5

Note: If wet mil thickness is greater than 45 mils and/or relative humidity is greater than 50% it will take longer for the coating to cure.
Ty-Zon Primer

Ty-Zon is an excellent product to use in areas where coatings have a tendency of not sticking well to smooth surfaces such as:

- a) APP (Atactic Polypropylene) Smooth
- b) Asphalt Emulsion
- c) EPDM (Ethylene Propylene Diene Monomer)
- d) PVC (Poly Vinyl Chloride)
- e) Concrete
- f) Urethane Coatings

Ponderosa’s Galacti-Kote® can be used over Ty-Zon.

Application Instructions

**Preparation**

All surfaces must be properly cleaned before applying Ty-Zon Primer. All repairs must be made before cleaning is done to insure no interior damage. Power-wash the roof surface with clear water.

**Priming**

Before priming make sure surface to be primed is clean and dry. Use only Galacti-Kote® Ty-Zon Primer. This is a water based two-part component epoxy. Part A is the resin portion and part B is the converter.

Step I  Mix by volume with moderate agitation, 3 parts component A to 1 part component B.

Step II  Allow 20 minutes induction time before applying.

Step III  Apply a liberal coat with airless spray or roller. Make sure no rain is forecast for 24 hours. One gallon will cover approximately 300 square feet.

Step IV  Allow 24 hours curing time. If daytime temperature is greater than 77°F and relative humidity lower than 50% curing time can be shortened.

Step V  Proceed with top coat using Ponderosa’s Galacti-Kote®.

**Note:** After application of topcoat, adhesion will develop slowly over the next 1-2 weeks, depending on temperature. Do not try to lift topcoat during this time. Pot life is 4-6 hours.
Metal Roofs
With Seams, Joints And Fasteners

Note: All rust on metal must be properly treated prior to “Three Coursing” (page 3) and/or applying Carlisle Hardcast® CRT-1602 tape. Refer to Technical Bulletin addressing “Rust On Metal.” (page 27 or page 28)

Using Galacti-Kote® And Polyester Fabric
Over Metal Seams And Joints
Metal roofs that have seams that are not standing seams (water tight) are required to be “Three Coursed.” refer to Application Instructions for “Three Courses” (page 3).

Over Fastener Heads
After all screw and fastening devices have been retightened or replaced apply a generous amount of Galacti-Kote® over each fastener head to encapsulate it. The use of polyester fabric is not necessary. Allow at least 4 hours of curing time at 77°F and 50% humidity before applying Galacti-Kote® on the field of the roof. Longer curing time may be necessary in cooler weather and/or higher humidity.

Using Carlisle Hardcast® CRT-1602 Tape
Over Metal Seams And Joints
Metal roofs that have seams that are not standing seams (water tight) are required to be “Three Coursed” or apply Carlisle Hardcast® CRT-1602 tape. Make sure you apply the #1602 Tape with minimum wrinkles or no air pockets near edge of tape.

Over Fastener Heads
After all screws and fastening devices have been retightened or replaced apply a piece of Carlisle Hardcast®CRT-1602 Tape so that it will extend beyond base of fastener head by at least ¾ “ in all directions. Make sure you apply the tape with minimum wrinkles or no air pockets near edge of tape.

Galacti-Kote® can be applied over the tape and field of the roof immediately after installing the 1602 tape.
Concrete

Moisture
New concrete contains water, some of which evaporates through the surface. Before any coating system is applied, the wet concrete must be permitted to cure (age) for as long as possible in order to reduce the moisture content. For slab-on-grade not subject to freeze-thaw cycling, 28 days is generally considered and minimum curing time prior to coating. These 28-day periods assumes an average or mean drying temperature of 70°F. In the winter and early spring a typical 6’ Portland cement concrete slab should be allowed to cure for 60 days.

Removal of Efflorescence
If concrete has efflorescence, remove all deposits by wire brushing and acid etching with phosphoric acid. Rinse all surfaces with clear clean water to remove any remaining residue.

Primer
In problem areas where there is a need for alkali resistance, apply an acrylic alkali resistant primer. On porous walls and decks use a latex stain blocking primer.

If walls and or decks are slick and smooth use Ty-Zon Primer rather than latex stain blocking primer. Refer to Product Data on Ty-Zon Primer (page 24).

What Is Alkali?
The stiff deposit that can form mostly on masonry surfaces such as concrete. Alkali can eat right through coatings that are put over a surface that contains it.

What Is Efflorescence?
Efflorescence is a fancy word for the term “salting”. Coatings will peel as a result of “salting”. Efflorescence is the crystal-like salt deposits that form on masonry surfaces. It is usually a light gray or white crystal deposit or powder. It occurs when salt like crystals or alkali in the internal part of the masonry surface dissolve and then travel to the surface when water evaporated from the masonry surface.
Rust On Metal

Question: What is the proper procedure for treating metal roofs with rust prior to applying Galacti-Kote® Fibered Elastomeric Coating?

Answer: Using Alkyd Primers

Step I  Wire brush to remove loose or heavily rusted and scaly area (all rust need not be removed).

Step II  Make all necessary patching and repairs to prevent water from entering building during power washing.

Step III  Remove oil and grease from metal with acetone, follow by soapy alkaline wash (T.S.P.). Then rinse with clear water.

Step IV  In areas where there is extra heavy rust and where practical, for top performance sandblasting to white metal is recommended. For less severe exposures or where sandblasting is not practical, remove heavy rust by chipping, scraping, wire brushing and sanding.

Step V  Power wash entire roof with clear water and let dry completely.

Step VI  Over ferrous roof surfaces (iron & steel) use an alkyd metal primer that has rust-inhibitive pigments with special corrosion fighting alkyd resins which yield maximum rust protection and moisture resistance. Use Ponderosa Protective Coating #73 primer; apply at a rate of 250 square feet per gallon for a dry mil thickness of 2.5 to 3.0 mils. If surface is severely rusted go over with a second coat of primer.

Over galvanized roof surfaces use Zinc Chromate Primer. Use Ponderosa Protective Coating #75 primer; apply at a rate of 300 square feet per gallon for a dry mil thickness of 2.0 to 2.5 mils. If surface is severely rusted go over with a second coat of primer.

Step VII  After the primer is thoroughly dry (at least 24 hours curing time) apply Galacti-Kote® according to Application Instructions.

Note: Before using these primers check with your local Air Pollution Control District (APCD) to make certain they are in compliance.
Rust On Metal

Question: What is the proper procedure for treating metal roofs with rust prior to applying Galacti-Kote® Fibered Elastomeric Coating?

Answer: Water Reducible Primers (Where low VOC’s are Required)

Step I Wire brush to remove loose or heavily rusted and scaly area (all rust need not be removed).

Step II Make all necessary patching and repairs to prevent water from entering building during power washing.

Step III Remove oil and grease from metal with mineral spirits follow by soapy alkaline wash (T.S.P.). Then rinse with clear water.

Step IV In areas where there is extra heavy rust and where practical, for top performance sandblasting to white metal is recommended. For less severe exposures or where sandblasting is not practical, remove heavy rust by chipping, scraping, wire brushing and sanding.

Step V Power wash entire roof with clear water and let dry completely.

Step VI Over ferrous roof surfaces (iron & steel) as well as galvanized roof surfaces use a water reducible acrylic primer that has rust-inhibitive pigments with special corrosion fighting alkyd resins which yield maximum rust protection and moisture resistance. Use Ponderosa Protective Coating #7400; apply at a rate of 300 square feet per gallon for a dry mil thickness of 1.5 to 2.0 mils. If surface is severely rusted go over with a second coat of primer. Wait 24 hours between coats.

Step VII After the primer is thoroughly dry (at least 24 hours curing time) apply Galacti-Kote® according to Application instructions.
Three Light In Solar Energy

<table>
<thead>
<tr>
<th>Total Solar Energy</th>
<th>Light Wave Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultraviolet Light= 5%</td>
<td>100-400 nanometers</td>
</tr>
<tr>
<td>Visible Light= 45%</td>
<td>400-700 nanometers</td>
</tr>
<tr>
<td>Infrared= 50%</td>
<td>700-2400 nanometers</td>
</tr>
</tbody>
</table>

**Ultraviolet (UV)**
Invisible light rays normally not damaging to inorganic materials such as roof coatings, but is damaging to organic materials such as human skin.

**Visible**
Very destructive to roof coatings. The greater percentage of reflectivity the less degradation and heat build up. It is in this wave length (400-700 nanometers) where polymers in a roof coating are subject to degradation.

**Infrared**
This light is not damaging to the polymers in a roof coating but can be absorbed and turn into heat. For conductive heat flow this is the most important light wave (700-2400 nanometers).

**Reflectivity Tests**
There are ASTM Tests that will measure the percentage of reflectivity of a roof coating at a given dry mil thickness after being exposed for a given period of time to Solar Energy.

ASTM D1729 and ASTM E97
These tests measure the Visible Light reflectance of a coating (400-700 nanometers).

**Reflectivity**
GALACTI-KOTE® FIBERED ELASTOMERIC COATING is one of the brightest pure white coatings available on the market today. As a result of space age technology in developing ceramic component GALACTI-KOTE® has a reflectance greater than 86%.
Insulation Value

GALACTI-KOTE® FIBERED ELASTOMERIC COATING has excellent insulating value, which will help keep energy costs down.

Tensile Strength

GALACTI-KOTE® FIBERED ELASTOMERIC COATING has incorporated the most advanced product technology; this includes the incorporation of DuPont™ KEVLAR® aramid fibers. These fibers give this product tremendous tensile strength as well as excellent flexibility.

Permeability

GALACTI-KOTE® FIBERED ELASTOMERIC COATING adheres well over metal, built-up, asphalt shingle, concrete and foam roofs. Also, it adheres to most single ply, modified bitumen and many other roof coatings.

Versatility In Application

GALACTI-KOTE® FIBERED ELASTOMERIC COATING may be applied with airless spray equipment, roller, or brush.

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Base</td>
<td>100% acrylic resin</td>
</tr>
<tr>
<td>Viscosity</td>
<td>101 Krebs Units</td>
</tr>
<tr>
<td>Pounds per gallon</td>
<td>11.6 +/- 0.2</td>
</tr>
<tr>
<td>Solids by weight</td>
<td>66% +/- 2%</td>
</tr>
<tr>
<td>Solids by Volume</td>
<td>53% +/- 2%</td>
</tr>
<tr>
<td>Application Temperature</td>
<td>Surface Temperature greater than 55°F</td>
</tr>
<tr>
<td>Dry Film Thickness</td>
<td>2 ½ Gal/Sq. 4-6 hours for light traffic</td>
</tr>
<tr>
<td></td>
<td>At 77°F and 50% relative humidity. Cooler</td>
</tr>
<tr>
<td></td>
<td>temperatures and higher relative humidity</td>
</tr>
<tr>
<td></td>
<td>may retard drying.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow of cured film at 160°F</td>
<td>None</td>
</tr>
<tr>
<td>PH</td>
<td>9.0±0.2</td>
</tr>
<tr>
<td>Reflectivity</td>
<td>86%</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>347 psi Initial- 893 psi 1,000 hrs CON_UV</td>
</tr>
<tr>
<td>Elongation</td>
<td>200% Initial – 141% 1,000 hrs CON_UV</td>
</tr>
<tr>
<td>VOC</td>
<td>50 g/l</td>
</tr>
<tr>
<td>Fire Rated – Class “A”</td>
<td>ASTM E108-88a CAN/S107-M87 and UL 790</td>
</tr>
</tbody>
</table>