Clear Guard Copper Preventive Coating™

AS

COATINGS

CLEAR GUARD

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TOMOTIVE SOLUTIONS

HABDENER

CLEAR GUARD

HARDENER

Specially Designed **COATING** *for* New/Old AC Copper Tubes & Condenser Coil.

HARDENER

AREA OF APPLICATION Air Conditioners Water Coolers Deep Freezers Industrial Chillers Panel AC

CLEAR GUARD COPPER PREVENTIN COATING

PART-A

Industrial Application

Passes ASTM- B117(Salt Spray)- 500 Hours Passes ASTM D 3359(Adhesion) Passes ASTM D 522(Flexibility)







CAR AC COILS



CHILLER PIPING



CHILLER UNITS



COILS



COILS OF AC



CLEAR GUARD COPPER PREVENTIVE COATING™



PRODUCT APPLICATION GUIDE FOR INDUSTRIAL APPLICATION

	Proper Cleaning. Remove Dust & Dirt.		
• в	Mixing Ratio 3:1 Mix Part - A & Part - B Only when Required .		
0	After Mixing of Products Part - A & Part - B, Use with in		

20 minutes else product will become hard.

Use BRUSH for Application.

Drying Time 6 to 8 Hrs.

APPLICATION

No coating can perform to expectations if applied to a poorly prepared surface. The metal surface must be free of contaminants such as dirt, oil, dust, old finishes, and finger prints. Coating should be done with a minimum of delay after cleaning and precautions should be taken to prevent recontamination. Precautions include working in a low dust environment, handling with white gloves, right mixing of product, use of product within specified pot life (time limit) and applying tarnish inhibitors (chelating agents) to the surface.It must be ensured that in every refrigeration system all the brazing joints should be coated

Both sides of Cooling Coil & Condensor Coil

Header joints for cooling coil & Condenser Coils

Suction, discharge & charging joints of the compressor

Capillary/expansion valve joints

Copper Filter/Stainer joints

Accumilator, Dryer joints

Reasons of Gas Leakage in Air Conditioning Unit

➡ Toxic gas and fumes from drains and sewers.
➡ House near drainage canal (Nallah).

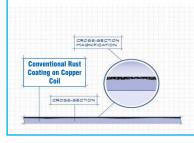
➡ Industrial pollution.
 ➡ Costal areas.

CHEMICAL RESISTANCE GUIDE

Exposure	Fumes	Splash & Spillage
Acids	Very Good	Very Good
Alkalies	Excellent	Very Good
Solvents	Excellent	Very Good
Salts	Excellent	Very Good
Water	Excellent	Very Good

Comparing Heat loss between coated and uncoated sample					
Coated sample temperature °C	Uncoated sample temperature °C	Difference sample temperature °C			
10	9.9	0.1			
20	19.8	0.2			
30	29.8	0.2			
40	39.7	0.3			
50	49.6	0.4			
60	59.4	0.5			
70	69.6	0.4			

OTHER COATINGS OVER COPPER COIL





WE INSPECT

WE ADVICE

Acid Rain.

ABSTRACT

Over the past several years the HVAC industry has experienced a large increase in instances of leaks in the brazing joints central portion of copper tube heat exchange coils. These leaks are



Microscope images of pits in copper tubing. (60X Magnification)

characterized as being very small in size and very high in numbers within a single coil. There are many chemical species that can cause these coil leaks, including chlorides from pool chemicals and clothes washing, sulphur from tap water, lubricants and nearby industries, and ammonia compounds from cleaners or nearby industries. However this recent increase in reported coil leaks is being attributed to a newly discovered class of corrosion known as ANT -Nest Corrosion resulting due to Drainage Canal (House Near Nallah), open smelling sewers, coastal areas & Industrial Pollution. Copper Corrosion is the degradation of metal caused by a reaction with the environment, such as oxidation and chemical attack of the metallic surface. Copper is susceptible to attack from sulphur-containing gases. The result is the formation of a non productive layer on the material surface. Unprotected copper tubing will continue to react with the contaminant and corrode. Under severe, prolonged conditions, the copper tubing continues to corrode until the integrity of the equipment is jeopardized. Unprotected copper in polluted industrial environments can lead to failure of the refrigeration system. Sulphur and nitrogenbased electrolytes are often the cause of accelerated corrosion in industrial environments.

Many HVAC manufacturers, Air Conditioner Manufacturer, distributors, and Contractors may not realize that hundreds of thousands of pinhole leaks have occurred during the last decade from corrosion. The cause is most typically Environmental pollutants, which range anywhere from salt air, to household cleaning agents, pesticides, formaldehyde, building materials, Industrial pollution, sewer pollution and even off gassing of food. Each of these contaminant sources can initiate corrosion in coil tubing in a year or less when the conditions are right.

Choosing the most appropriate coil coating for the application could save the Project thousands of Rupees and eliminate repeat treatments. Choosing the wrong coil coating could reduce heat transfer capabilities and lead to higher energy bills. 1/100th of an inch of corrosion on an air conditioner condenser coil can increase cost of operation by 30%.

INTRODUCTION TO COPPER PIPE CORROSION

Copper exhibits good resistance to corrosion in urban, marine, and industrial atmospheres. The major factors that control the initial rate of attack on copper are moisture, temperature, and the level of pollution. Soon after exposure of

copper to the atmosphere copper oxidize, the bright copper surface takes on a dull tan tarnish. After a few months this tarnish gradually changes to dark brown or black. At a later stage the corrosion products of copper turn green.





Clear Guard Copper Preventive Coating[™] Whv

Clear Guard Copper Preventive Coating is a high performance single step coating to block all corrosion related problems arising due to Industrial Pollutions & environment. This coating is designed to take any type of acid, alkali, solvents, salt & hard water attack on copper & protecting from rusting & gas leak problems.

- Strong resistance to salt water
- Extremely weather resistant
- Superior resistance to wear
- Excellent adhesion properties

Merits of Clear Guard Copper Preventive Coating™

- Protection for copper coil & tubing.
- Tried & Tested for Last 4 Years
- Excellent Adhesion with Rusted Coil.
- Heat Transfer Capability.
- Easy to apply.
- Saves Recurring cost of gas filling.



Unprotected Copper Coil

Anti Corrosive Properties.

Confirms IS Standards.

High Resistance to Acids, Alkali & Solvents.

Fast Drying.







COILS OF SPLIT



DUCTABLE COILS



VRV PIPING



PANEL COOLER



EVAPORATER & CONDENSORS



WATER COOLERS



WE CERTIFY



SPLIT AC



Speed $\sqrt{}$ Do it yourself Kit Pack Size & Coverage Quality 🗸 **Pack Size** Coverage Area (ML) (TR) (Sq. M.) Expertise 🗸 Why us? 6.5 200 1.4 Satisfied Customers 🗸 400 13.0 2.8 Technical Support 🗸 1000 33.0 7.0 Reliability V 4000 133.0 28.0 Security V 30 ML Per Ton Price V Scan the QR Code & Make the Product Live Order Online

WEBSITE



HOW TO APPLY CLEAR GUARD



WHAT IS CLEAR GUARD



www.buypaintsonline.com

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