



TXR-RESTORE

THERMAL-XR has created a unique and practical way of improving thermal conductivity of corroded heat exchange surfaces. This revolutionary process coats and protects damaged heat exchange surfaces from corrosion while rebuilding the lost corroded thermal conductivity. The result is an improvement in efficiency and a reduction in power consumption.



PRODUCT DESCRIPTION

TXR-RESTORE developed by THERMAL-XR is a water based acrylic resin designed for the corrosion protection of HVAC condenser coils. It is impregnated with highly concentrated thermally conductive particles that helps rebuild thermal conductivity lost from damaged caused by corrosion. THERMAL-XR provides the chemicals and procedures to protect HVAC coils both RTPF (round tube plate fin) and MCHC (micro channel) Coils from accelerated corrosion damage. The THERMAL-XR process can be used on already damaged coils in the field to restore lost energy efficiency and on new coils to maintain high energy efficiency. By following the THERMAL-XR procedure the applicator can extend the life of coil and maintain energy consumption.



SPECIFICATIONS

Water based acrylic resin impregnated with thermally conductive particles applied by high pressure spray gun. The coating shall be UV resistant, have a DFT of no more than 15 microns, flexible and highly resistant to aggressive environments. The adhesion level will meet Cross Hatch Test Level 0 (European) and 5B (USA) according to ASTM 3359-88 53151 method B-A. Corrosion resistance will be confirmed by testing of no less than 10 000 hrs salt spray resistance per ASTM B117 using aluminium test panels.



APPLICATIONS FOR TXR-RESTORE

New and already installed air cooled condenser coils.

APPLICATION METHOD

Following THERMAL-XR procedures using TXR-PREP and TXR-ACTIVATE to prepare the coil surface. Spray using compressed air and HVLP spray gun. TXR-RESTORE needs to be mixed well before application. Brush and roll applications are not recommended.

STORAGE

Store in original contained out of direct sunlight and in areas less than 30 C. Shelf life plus 5 years when stored in unopened original contained. Once opened and partially used contents have shelf life of 12 months.

THERMAL-XR is building a network of quality distributors and local applicators around the world to service the residential and commercial HVAC and Refrigeration Market.

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DRYING TIME

- Room temp and relative humidity less than 80 %
- Touch dry 5 minutes
- Handle in 1 hr
- Recoat 10 minutes
- Full cure 24 hrs

CLEANING PROCEDURE

The coil being coated with TXR-RESTORE needs to be prepared well using the THERMAL-XR Procedure. Make sure the coil can be reached so it can be properly cleaned, dried and coated.

- Fully soak the coil with clean water.
- Apply TXR-PREP cleaner to the coil as per instructions and allow to dwell.
- Fully rinse off the TXR-PREP from the coil and allow to dry.
- Apply TXR-ACTIVATE to the coil as per instructions, DO NOT RINSE OFF.
- TXR-RESTORE needs to be applied with 24 hours of using the TXR-ACTIVATE.

DRYING PROCESS

The coil must be dry before the application of TXR-RESTORE. Either turn the unit on to accelerate drying or using a power blower or compressed air.

SPRAY APPLICATION

Before the TXR-RESTORE is applied the coil must be cleaned and dried using the THERMAL-XR Process.

The TXR-RESTORE coating must be applied with at least three quality passes across the coil. This will allow the coating to contact the collar and any previously damaged heat exchange surfaces. Compressed air pressure should be between 40-60 PSI using a tight spray pattern at no more than 100mm from surface. Three full passes should be used in both the horizontal and vertical directions.

EQUIPMENT CLEAN-UP

After the coating has been applied all equipment used can be cleaned using water and a small brush.

STANDARD PACKAGING

350g AEROSOL / 5 litre / 20 litre



PROPERTY	TEST METHOD	RESULT
Salt Spray	ASTM B117	Exceeds 10000 hours
Salt Spray Acidic	ASTM G85 A1	Exceeds 3000 hours
Water Immersion	ASTM D870	500 hrs minimum
Cross Hatch	ASTM 3359	5B
UV Resistance	ASTM D4587	Exceeds 1000 hrs
Flexibility	ASTM D522M	PASS
THERMAL CONDUCTIVITY	ASTM E1225	15 W/MK
C5 Condensation	ISO 6270	PASS
C5 Chemical Resistance	ISO 7523	PASS
PHYSICAL PROPERTIES		RESULT
Viscosity (Krebs, KU)		93- 98
Viscosity (Centipoise, cP)		1300 – 1500
Solids % by: volume/wt		30.00% /50.00%
Density		1.2138 Kg/L
pH		8.8 – 9.5
Gloss at: 20°/60		65/92
VOC		165 g/Litre
Flash point		Water-Borne/Non-Flammable
DFT		15 microns
Coverage (Practical)		15 m ² /Litre
Application temp.		Apply at above 5°C