

## Korotherm® thermal protective coating

### Description

Korotherm® coating is a thermal barrier coating designed to shield substrates from high temperatures and fire environments. Korotherm® is a two-component urethane, low density coating with excellent chemical resistance. This coating is designed to withstand years of severe operational environments commonly experienced with aircraft. Korotherm® coating has been successfully used on engine compartments of aircraft, rocket launch pads and on propane fuel tanks.

Korotherm® coating can be either sprayed applied or troweled over a primer coat in multiple coats to obtain the required film thickness. For further details on the application parameters of this coating, your local PRC-DeSoto International Application Support Center.

Korotherm® coating is qualified to the following specifications:

- 5PTMMG01A
- MMS-455
- MS-445

Korotherm® coating is compatible with the following DeSoto® primer:

- 519X303 High temperature primer

### Application properties

Application temperature	65°F - 95°F (18.3°C to 35°C)
Application humidity	40% - 85%
Mix ratio	
By volume	
Base (821X404)	4 parts
Activator (910X407)	1 part
By weight	
Base (821X404)	100 parts
Activator (910X407)	25.83 parts
Viscosity,	
Initial mix, @ 5 rpm Spindle D	120 to 250 poise
Application life (pot life)	10 to 20 min.

VOC, EPA method 24	76 grams/liter
Dry film density	
0.0065 lbs/ft <sup>2</sup> @ 1.0 mil dry film	
(32 g/m <sup>2</sup> @ 25 microns dry film)	
Theoretical coverage	
1400 ft <sup>2</sup> /gal @ 1.0 mil dry film	
(34.9 m <sup>2</sup> /l @ 25 microns dry film)	
Recommended dry film thickness	
50 to 135 mils (1.3 to 3.4 mm)	
Drying times @ 75°F (23.9°C)	
Set to touch	33 to 50 min.
Tack free time	60 to 80 min.
Dry hard	90 to 120 min.
Time between coats	20 min. to 24 hrs.
Full cure	7 days
Color	Whitish gray
Spray equipment - Plural component	
spray equipment with a mixing	
chamber with a Hydra-Mastic	
airless spray gun.	
Shelf life	
6 months @ 40°F (4.4°C) from date of manufacture	

### Performance properties

Service temperature		
-65°F to 2,000°F		
(-54°C to 1,093°C)		Conforms
Impact resistance		150 in-lbs (173 cm-kg)
Fluid resistance		
Mil-H-5606 hydraulic fluid		
7 days @ 75°F (23.9°C)		Conforms
Mil-L-7808 jet engine oil		
7 days @ 75°F (23.9°C)		Conforms
Mil-L-23699 synthetic lubricating oil		
7 days @ 75°F (23.9°C)		Conforms
Mil-H-83282 fire resistant hydraulic oil		
7 days @ 75°F (23.9°C)		Conforms
Humidity resistance		
500 hrs. in humidity cabinet		Conforms

# Korotherm® thermal protective coating

## Corrosion

Salt spray

Passes 500 hours

Conforms

Temperature of intumescence

500°F (261°C)

Specific heat (cal/g/°C)

.36 @ 24°C

.22 @ 575°C

Fire resistance - Backside temperature

of coated aluminum panel remains

below 550°F (288°C) above ambient

for 15 minutes. When a 130 mils

(3,250 microns) of coating is exposed

to a 2,000°F (1,093°C) flame from a

Fisher burner.

---

**Note:** The application and performance property values above are typical for the material, but not intended for use in specification or acceptance inspection criteria because of variations in testing methods, conditions, and configurations.

## Storage life

Inspect the condition of the container to ensure compliance to FED-STD-141, Method 3011.1. The material should be stored at 40°F (4.4°C) to ensure shelf life.

## Clean up

Use Desoclean® 110 cleaner for cleaning equipment and surrounding areas. Clean up should be done promptly to avoid cured coating remaining in or on equipment.

## Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the PRC-DeSoto International "Safe Handling Guide" for aerospace coatings and the Material Safety Data Sheet (MSDS), which provide information on health, physical and environmental hazards, handling precautions, and first aid recommendations. An MSDS and the Safe Handling Guide are available on request. Avoid overexposure. All mixing and spraying must be conducted with adequate ventilation and proper personal protective equipment is recommended. Obtain medical care in case of extreme overexposure.

**For industrial use only. Keep away from children.**

**For emergency medical information call 1-800-228-5635.**

**For sales and ordering information call 775-323-7542**

**DeSoto and Desoclean are trademarks of PRC-DeSoto International, Inc., registered with the U.S. Patent Office.**

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.