



## REDI-SPEC

1. **Product** : TEMP-COAT® 101

### 2. Properties of TEMP-COAT 101

Percent solids by Volume	(+/-) 83%	
Wet Weight	5.25 lbs/gal	0.62kg/litre
Shipping Weight per 5 gal pail	28.5 lbs	12.93 Kg
Dry Weight @ 20 mils ( 0.5 mm)	0.8 oz /ft <sup>2</sup>	0.22 kg/m <sup>2</sup>
Dry Weight @ 100 mils (1.5 mm)	4.0 oz/ ft <sup>2</sup>	1.2kg/m <sup>2</sup>
Theoretical Coverage @ 20 mils ( 0.5 mm)	66.6 ft <sup>2</sup> /gal	1.5 m <sup>2</sup> /litre
Expected Coverage	Please see Application guide	
VOC Content	0.0099 expressed per EPA Method 24 (weight fraction)	
Thermal Value - <b>k(equivalent)</b>	<b>k(eqv)</b> = 0.23 (Btu-in)/(hr-ft <sup>2</sup> .°F)	0.0332 W/M °C 0.0331 W/MK
TEMP-COAT® 101 Operating Temperature Range	-80 °F to 400 °F**	-62 °C to 204 °C
** On extremely warm to hot surfaces, beginning coats must be thin to avoid blistering.		
TEMP-COAT® 101 can be applied to temperatures ranging from	45 °F to 350 °F ***	7 °C to 177 °C
*** In some instances for temperatures 350 °F (177 °C) to 400 °F (204 °C) a mesh membrane must be use and the High Temperature Application Instructions must be followed. Please consult technical representative of TEMP-COAT® Brand products.		

### 3. DESCRIPTION

TEMP-COAT® is a general purpose insulation which comes in liquid form.

TEMP-COAT® liquid ceramic insulation is a thin film that performs extremely well on piping, tanks, air and heat duct work, exposed water pipes, oxygen lines, steam lines, chilled water lines, cryogenics, vehicle/transportation and has many other uses.

TEMP-COAT® provides an inexpensive alternative to the high cost of industrial insulations. Because it physically adheres to the surface that it is insulating, it significantly reduces (CUI) corrosion and rust formations found under conventional insulations.

**Make Up:** TEMP-COAT® is a complete mixture of various hollow silica and ceramic beads immersed in a high quality latex base with acrylic binders. This combination of materials makes the product extremely light weight and pliable, therefore, it expands and contracts with the surface to which it is applied.

TEMP-COAT® can be tinted virtually any medium to pastel colour.

### 4. Benefits of TEMP-COAT®

- Curbs Corrosion Under Insulation (CUI) by adhering to the surface it insulates
- Ability to insulate at relatively thin film compared to conventional insulations
- Does not Require Jacketing
- Easily Repaired
- Ease of inspection
- Can be applied on surfaces up to 350°F without disruption of operations
- Will not absorb moisture or liquids
- Will not harbour bacteria, rodents or Insects
- Eliminates waste
- Ease of Application

### 5. APPLICATION

#### • Surface Preparation

Apply TEMP-COAT® on any clean, dry substrate which is free from oil, grease, wax or dirt and assuming the existing coating or surface is stable. A minimum of SP-2/SP-3 or equivalent. A sufficient amount of Primer on all surfaces prone to rust and to prevent bleed through is recommended.

#### • Mixing

A rectangular Sheet Rock Mud paddle is needed to blend the product.\*

#### • Spray equipment requirement:

Pump capable of producing 2 to 3 gpm at 3000psi (28:1 ratio airless sprayer or larger) \*

Our air assisted "Quik-Gun" is designed for small or hard to reach applications. This gun operates on 80 psi air supply.\*

Brush and roller is only recommended for touch ups and repairs.\*

#### • Application Conditions:

Surface temperature should be 45°F (7 °C) and rising.\* Product should be applied in 20 mil coats, allowing the product to dry to the touch prior to successive coats. Total cure time is 24 hours under normal conditions.\*

#### • Clean-Up

TEMP-COAT® is a water based acrylic product. Clean up immediately after use with soap and water. Caution: Use drop cloths and necessary protection to prevent damage from drips or overspray under windy conditions.\*

TEMP-COAT®  
Is listed with  
the following:



TEMP-COAT®  
Is approved for  
use by:

\*See Application/ Instruction Manual.





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**6. APPROVALS & ACCEPTANCE**

UL Listed: PD# 08M33835  
 CRRC Prod. ID 0998-0001  
 MAS Certified Green Product  
 Energy Star Partner  
 Lloyd's Register of Shipping #SAS FOI0506  
 GSA/NSN #8030 01 387 1027  
 Approved: U.S. Coast Guard, MLCA Std 6300N P .35  
 Accepted for Certification by: USDA Accepted by: FDA  
 Approved by: Dept. of Energy  
 Accepted by: Navy Safety & Survivability  
 Accepted by: British Royal Navy Health and Safety  
 S.I.C. Code: 5033  
 All Ingredients TSCA Listed

**7. TEST RESULTS**

TEMP-COAT® has been tested under a number of varying conditions to produce "R" factor equivalence which is available in the information below. The product has also undergone a number of ASTM tests including:

**THERMAL PROPERTIES**

Independent Thermal Evaluation: Thermal conductivity value determined by comparative testing.  
 $k(eqv) = 0.23 \text{ (Btu-in)/(hr-ft}^2\text{-}^\circ\text{F)}$

Thermal properties directly relate to the thickness of product required to insulate a given substrate.

**CERTIFIED LAB & ASTM RESULTS**

SOLAR REFLECTANCE RATING TESTED TO	87.7% Average
EMITTANCE RATING	85%

**FLAMMABILITY**

FLAME SPREAD	5	ASTM E-84
SMOKE DEVELOPED	5	ASTM E-84
TOXICITY	0	ASTM E-84

**MECHANICAL PROPERTIES**

CROSS HATCH ADHESION	100%	ASTM D-3359
TENSILE STRENGTH (LB/IN2)	66.7%	ASTM D-882
ELONGATION	65%	ASTM D-882

**PHYSICAL PROPERTIES**

FUNGAL GROWTH	NONE	MIL-STD-810
VAPOR TRANSMISSION	0.635	ASTM E96, Meth. E
ACCELERATED AGING	200 HR PASSED	ASTM G-53
DENSITY (g/ch3) @ 24C DRIED FILM	0.41	ASTM D- 792
VOLUME NON-VOLATILES	43%	

VOLUME DRIED FILM 83% (+/-2)

Ph 8.7

SPECIFIC GRAVITY 0.69

HEAVY METALS	NONE DETECTED
CHLORIDES – MERCURY	NONE DETECTED

- SEVERE SERVICE AND WEATHER TESTING BY ARCO ALASKA, PROD. - APPROVED.
- PIPE COATING, SEVERE SERVICE FOR P&G - PASSED
- SALT FOG, McDONNELL DOUGLAS - 2,100 HRS PASSED
- PERSONNEL SAFETY TEST INGALLS SHIPBUILDING - PASSED
- DB INSERTION REDUCTION CHARACTERISTICS NOTED IN BOEINGTESTS

ROOF COATING: THERMAL AND REFLECTIVE COMPARATIVE TESTING BY CERTIFIED LABS SHOW TEMP-COAT® EQUIVALENT TO 4" OF STYROFOAM RATED AT R-20

**8. OTHER EXCEPTIONAL FEATURES:**

The product, in addition to its outstanding insulating qualities and superior adhesion, has low flame spread, is impact and abrasion resistant, is flexible and assists in protecting coated surfaces from wind driven rain, cold-heat cycling, chemical vapors and mildew. These qualities make it the standard in ceramic coatings.

**9. SHIPPING AND SUPPLY METHOD**

TEMP-COAT® Brand Products are available from a distributor near you.

**10. WARRANTY**

Limited Warranty: TEMP-COAT® Brand Products, LLC. Warrants TEMP-COAT® as an insulation under normal use and installation conditions for a period of 10 years from the date of application. Insul-All™ 8 years. Complete warranty and installation information is available upon request.

**11. MSDS INFORMATION**

All ingredients are TSCA registered and are not harmful. For Material Safety Data Information, please contact local TEMP-COAT® Brand distributor

**12. Local distributor**

AXLCLAD Ltd. Industrial and Marine Coatings  
 Tel 09 575 4065, Mob 027 4804771  
[dmarcel@axlclad.co.nz](mailto:dmarcel@axlclad.co.nz) [www.axlclad.co.nz](http://www.axlclad.co.nz)

**13. SURFACES**

TEMP-COAT® can be applied to any of the following clean, dry surfaces.  
Steel Chrome Galvanize Aluminum Iron Fiberglass Brass Cloth  
Copper Stone Slate Stainless Tar Vinyl Glass Polyurethane Foam  
Plexi-glass Cardboard Paper Magnesium Plastic Glass Pipe Plastics  
Masonite, Primed Surfaces Asbestos Fibreboard, Painted Surfaces  
Wood, Granulated Roof Shingles ...and many more

Revised 2009©

TEMP-COAT®  
Is listed with  
the following:



TEMP-COAT®  
Is approved for  
use by:



\*See Application/ Instruction Manual.