#### TEMP-COAT Brand Products 301 W. Airline Highway, Suite 100 LaPlace, LA 70068 (985) 651-2911













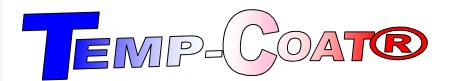




# Introducing TEMP-COAT Thermal Insulation

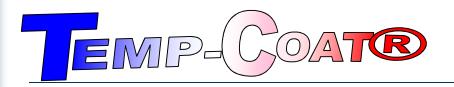
Presented by:





# **Highlights**

- 25 Years of Successful Installation (with NO warranty issues)
- Non Toxic (Ph 8.2) Approved by FDA and EPA
- Application with no need for shut-down or process interruption between -80
   F and 350 F
- Quick drying 1/5 liquid by volume
- Light weight 5.9lbs per gallon (In Pail)
- Acrylic Latex Binders for long life and UV Resistance
- Inhibits mold and mildew growth
- High Quality with 10 year Manufacturer Warranty
- Approved by Multiple Independent Testers
- Extremely stable in hostile conditions between -30 F to +500 F
- Color to tint product may be added in country by distributor
- Remarkable Return on Investment
- Installed by local distributors or local contractor following certification



### **Overview**

- A Ceramic Insulation that is a Thin Thermal and Condensation Barrier used as:
  - Heat and Cold Temp Control
  - Personnel Protection
  - Anti-Sweat Control
  - Acoustics Control
- And Can be applied to:
  - Roofs, Deck, Bulkheads and Ceilings
  - Bilges, Tanks, ISO containers
  - HVAC ducts, Wire-ways,
     Pipelines and valves



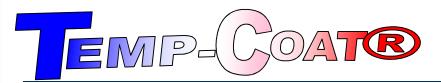
#### Thermal Effects

- Keqv Value of 0.23 (BTU-in)/(hr-ft²-°F) according to certified, independent tests
- Product can be applied between
   -80 and +500 degrees F

#### Flame Retardant

- LOW FLAME SPREAD of 5
   (ASTM E-84) (0 is concrete and 100 is red oak flooring)
- Smoke produced is Non-Toxic





# **Application Facts**

Desired Mil Thickness	Sq Feet per Gallon	Sq Meters per Gallon
240	3.75	.35
200	4.25	.40
180	5.0	.46
160	5.5	.51
140	6.5	.60
120	7.5	.70
100	8.5	.79
80	12.0	1.11
60	15.0	1.86
40	20.0	2.97
30	30.0	3.72
20	40.0	5.57
15	60.0	5.57

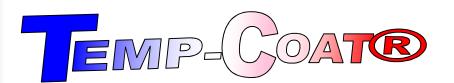
A Mil is 1/1000 of an inch. 15 Mils is equal to 7 sheets of writing paper. A Mil is NOT a Millimeter.

- 15 mil to 20 mil per coat
- Performed by local certified applicators
- Surface application temperatures 45° F and rising (7° C) to 350° F (177° C)
- Uninhibited airless spray application between 15 and 30 mils on flat surfaces, with weather and conditions acceptable, a team of two persons can apply 550 SF per hour using conventional airless spray equipment
- Flash time under normal dry conditions is two (2)
   hours or less much faster on warm to hot surfaces

∘F of Substrate	∘C of Substrate	Rec.Thickness in Mils (1/1000s of an inch)	Rec.Thickness in Millimeters	
400**	204	210	5	
350*	177	160	4	
300	149	130	3	
250	121	110	2.5	
200	93	80	2	
32	0	20	0.5	
0	-18	40	1	
-30	-34	50	1.2	
<b>-45</b>	-40	60 EMB 000 A T. I. IT Is	1.5	

<sup>\*</sup>May disbond on at temps over 350F, TEMP-COAT HT may be used as base

<sup>\*\*</sup>Temperatures great that 350F require



# **Application Facts**

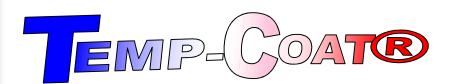
- Product is 83% Solids By Volume
- Surface Preparation: SP2 Hand Tool Cleaning as defined by Steel Structures Paint Council
- Product is mixed utilized a square sheet rock mud paddle
- Generally installed with airless spray equipment rated at 2 to 3 gallons per minute at 3000 psi
- Small applications and repairs may be achieved by use of the Quick Gun or brush and roller as needed
- TEMP-COAT BRAND PRODUCTS is a full service oriented company. We provide technical assistance from the beginning to end of your project to ensure its success.









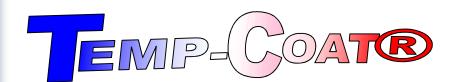


# **Re-Coat Times**

#### **TEMP-COAT 101**

Product Re-Coat Times(Based on 20 mil application)

Product Re-Coat Times(Based on 20 mil application)								
Ambient	Humidity (%)							
Temperatures (°F)	10 - 20	20 - 40	40-60	70	>80			
45 - 55	1.5	2	3	4	5			
55 - 65	1.25	1.5	2.5	3.5	4	Н О		
65 - 75	0.75	1	2	3	3.5	U R		
75 - 85	0.75	1	1.5	2	3	S		
85 -95	0.5	0.75	0.75	1	1			
95 - 105	0.5	0.75	0.75	0.75	1			
105 - 110	0.5	0.5	0.75	0.75	0.75			



# Temp. Differential

#### TEMP-COAT 101

#### **Temperature Differential Guidelines**

		Mils								
		20	40	60	80	100	120	140	160	180
	*430	290	265	240	190	170	160	155	150	148
	*400	278	240	210	170	160	155	153	148	144
	370	255	237	192	158	150	148	145	145	141
F°	340	225	215	170	162	142	138	134	130	130
	280	200	190	155	120	110	106	106	102	
	250	165	160	130	100	95	85			
	220	155	140	128	96	90	80			
	160	115	95	85						
	130	80	75							

This document considers Industrial Applications representing gasses and fluids under pressure. <u>It does not take into consideration reflectivity.</u>

THIS CHART IS DEVELOPED FROM INFORMATION GATHERED IN TWO INDEPENDENT TEST STUDIES.

THE EXTRAPOLATED DATA PRESENTED ABOVE WAS CREATED UNDER IDEAL LAB CONDITIONS AT 70°F.

IN PLANT OR EXTERIOR CONDITIONS RESULTS MAY VARY BASED ON AMBIENT CONDITIONS.

<sup>\*</sup> PLEASE CONSULT TEMP-COAT BRAND PRODUCTS PRIOR TO UTILIZING PRODUCT AT TEMPERATURES ABOVE 350°F



# Reduces loss due to heating and cooling (sludge build up)

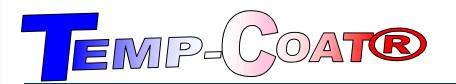
- Protects personnel
- Eliminates over 85% of solar heat transfer highly reflective
- Adheres to hot and cold surfaces (-80° F(-66.2C) to +350° F(176.7C) and can insulate surfaces to 500° F
- Can be applied to surfaces up to 350F without disrupting operations
- Does not require jacketing allowing for visual inspection
- No seams to leak and cause corrosion issues
- Not prone to wind, hail or snow load damage
- Adheres directly to surface (eliminating moisture between insulation and surface causing scale and corrosion (CUI)
- Little to no maintenance and easy to use and repair
- Impervious to water, salt water and most chemicals
- Reduces or stops expansion and contraction, which causes roof damage

# **Advantages**

# Petroleum and Chemical







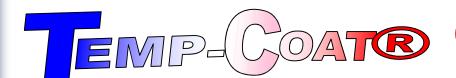
### **More Advantages**

- Creates a better work environment, increasing productivity
- Provides a constant, uninterrupted thermal barrier regardless of the length or size of the job
- Extremely cost effective
- Can be tinted most light to medium colors by manufacturer or in country
- Environmentally Friendly: Contains no VOC's or Heavy Metals









# Quick Gun Application

**For Small Areas and Repairs** 



A SMALL COMPRESSOR AND THE QUIK GUN DOES THE JOB @ 80 PSI\*



MIX THE PRODUCT FOLLOWING THE SIMPLE INSTRUCTIONS



LOAD THE HOSE HOLDING THE QUIK GUN AT BUCKET LEVEL



HOLDING THE QUIK GUN 14" FROM THE SURFACE TO BE COATED WILL PRODUCE A 4" TO 5" PATTERN



HOLDING GUN CLOSER TO THE SURFACE WILL PRODUCE A SMALLER PATTERN



KEEP TEMP-COAT® MIXED AS YOU SPRAY BY STIRRING WITH A FLAT STICK OR PADDLE



KEEP TEMP-COAT® MIXED AS YOU SPRAY BY STIRRING WITH A FLAT STICK OR PADDLE



IF YOU MUST STOP SPRAYING EMPTY THE GUN AND HOSE AS INSTRUCTED AND WASH THE GUN THOROUGHLY WITH FRESH WATER.

Application can be performed using spray gun, roller or brush.

# **TEMP-COAT Testing and Approval**

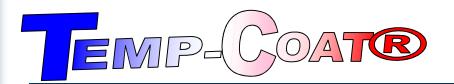
#### **ASTM Tests Satisfied...**

- C-177 (Thermo-Conductivity)
- D-792 (Density/Weight)
- G-53 (Accelerated Aging)
- B-117 (Salt Fog Testing)
- D-3359 (Cross Hatch Adhesion)
- D-882 (Tensile Strength)
- E-84 (Flame Spread)
- E-1461-92 (Thermal Diffusivity)
- E-1269 (Specific Heat Capacity)

All Test Results are independently certified.

#### Approved by...

- Department of Energy Energy Star2003
- Dept. of Homeland Sec. U.S. Coast Guard
- NAVSEA Systems Command 2003
- SAVSEA Systems Command 2000
- Food and Drug Administration
- Department of Agriculture
- Lloyd's of London (SOLAS)
- Purdue Univ.
- Thermo physical Properties Research Lab
- American Shipbuilders



### **Customers**

#### Production and Transport

- Coca-Cola
- SIKORSKY Helicopter
- Newport News Shipbuilding
- Marathon Coach
- Dupont
- Dow
- LITTON Shipbuilding
- Cytec Industries
- Dole, Chiquita Food Refrigerated .
   Trucks
- Princess Cruise Lines
- Lloyds of London / State Farm Insurance
- Safe Haven Enterprises, Inc.
- Dixie Carriers
- Delmonte
- And Many Others

#### Energy and Petroleum

- Shell Oil Offshore
- ENTERGY Electric Power Company
- Chevron
- Exxon
- Pemex
- Arco

# Energy Saving

#### Government

- U.S. Coast Guard
- U.S. Navy / U.S. Army / U.S. Marines
- U.S. Department of Agriculture / FDA
- U.S. Department of Energy "Energy Star"
- Several U.S. State Governments
- Japanese Navy

## **TEMP-COAT Certifications**

energy

Lloyd's Register – FIRE Approval Certificate # SAS/F96/640

#### **ASTM Tests Satisfied:**

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#### APPROVED BY:

- ◆ Dept. of Energy Energy Star 2003
- ▶ Dept. of Homeland Security U.S. Coast Guard
- ◆ NAVSEA Systems Command 2003
- ◆ NAVAIR Systems Command 2000
- ◆ Food and Drug Administration
- **◆** Department of Agriculture

#### **>** GOVERNMENT

- o U.S. Coast Guard
- o U.S. Navy
- o U.S. Army
- National Guard Bureau
- o U.S. Gov't Equipment & Facilities
- o State of Louisiana-Dept. of Highways
- Arkansas Dept. of Human Services

#### >INDUSTRY

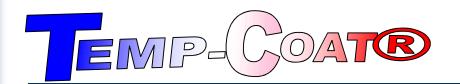
- SIKORSKY Helicopter
- o ENTERGY Electric Power Co.
- Cytec Industries
- o Shell Oil Offshore
- Helmerich & Payne International Drilling Co.
- Schouest
- o GTS Finnjet
- o Dixie Carriers
- o LITTON Ingalls Shipbuilding
- Newport News Shipbuilding

- o K & S Diesel Service
- o Hollywood Marine
- Apex Towing
- Marathon Coach
- Horizontal Drilling
- o Sam Woo Che Company, LTD.
- o POLMIL, LTD
- o UCAR Pipeline Inc.
- Nat'l Electric Energy Company (Puerto Cortez)
- Auburn Waste Oil Reprocessing Laboratory (Auburn University)

#### > COMMERCIAL

- Safe Haven Enterprise, Inc.
- Dole, Chiquita & F. Christiana & Co. Food Refrigerated Trucks
- Princess Cruise Lines
- o M/S Grandeur of the Seas Cruise Liner
- State Farm Insurance

Anti-Sweat Heat & Cold Temp Control Acoustics Roofs / Decks / Bulkheads / Ceilings Bilges / Tanks / ISO Containers HVAC ducts / Wire-ways / Piping / Valves

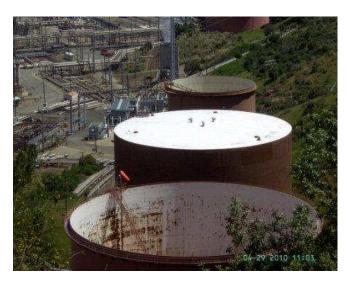


# Chevron





Chevron Offshore (Angola)



Chevron (California)

