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# WELCOME TO TOTAL TEMPERATURE CONTROL

Powerblanket is proud to be an American manufacturer. As the leader in total temperature control, Powerblanket designs and manufactures high-technology smart controls and monitoring devices, heating blankets, and chilling products that solve a wide range of temperature problems. Industries such as oil and gas, construction, industrial, mining, and railroad rely on innovative Powerblanket technologies to control the temperature variable.

Choose Powerblanket for customized freeze protection; curing epoxy, composite materials, and concrete; process heating and cooling; and many other solutions. With Powerblanket, equipment lasts longer, projects stay on track, and fluids flow smoothly. Use Powerblanket year-round to prevent costly setbacks, increase productivity and achieve **TOTAL TEMPERATURE CONTROL.**



# INDUSTRIES WE SERVE

## COMPOSITE & EPOXY CURING

Thermal curing technology for epoxy and composites used in industries such as aerospace, marine, and wind energy



## RAILROAD

Designed to assist railroad companies in protecting resources and ensuring operational continuity



## CONSTRUCTION & CONCRETE

Concrete, roofing, spray foam, painting, and others benefit from using Powerblanket during cold weather



With Powerblanket, equipment lasts longer, projects stay on track, and fluids flow smoothly. Use Powerblanket technology year round to achieve total temperature control. Some of the various industries we serve include:

## CHEMICAL

Ensure that heat is evenly applied to keep equipment operational and chemicals safe



## AGRICULTURE/ DAIRY

Solutions that are economical, easy to use, store, and transportable



## OIL & GAS

Protect your assets against the threat of failure, downtime, and hazardous conditions



- |           |                 |                 |                    |                      |
|-----------|-----------------|-----------------|--------------------|----------------------|
| Oil/Gas   | Valves          | Roofing         | Mining             | Fertilizer           |
| Railroad  | Instrumentation | Industrial      | Concrete           | Brewing              |
| Sprayfoam | Food Processing | Manufacturing   | Public Works       | Fermentation         |
| Coatings  | Composites      | Specialty Gases | Excavation         | Welding              |
| Chemical  | Construction    | Agriculture     | Water Purification | Diesel Exhaust Fluid |
| Piping    | Precast         | Dairy           | Government & DOD   |                      |

Powerblanket products are listed cETLus\*, they conform to ANSI/UL 499, and are certified to CAN/CSA C22.2 No. 130. Our hazardous location products meet the above standards as well as ISA12.12.01 and CSA C22.2 No. 213. Our hazardous location products are listed for use in Class I Division 2; Groups A, B, C, and D Hazardous Environments with a maximum Temperature Classification of T4. Summerstep is cTUVus listed. \*The Beacon Controller and Fluxwrap are not cETLus.



# CUSTOM SOLUTIONS

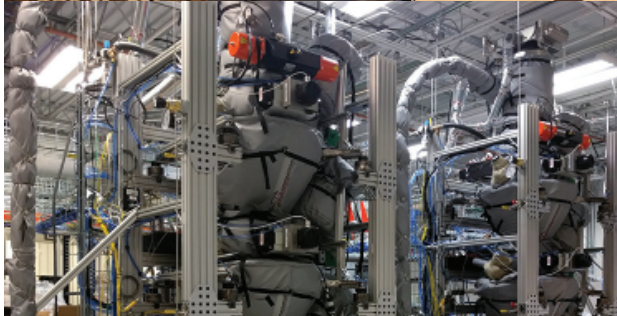
## HAZARDOUS LOCATIONS

The most advanced hazardous area heating systems with special wiring and safety equipment to ensure the highest standards.



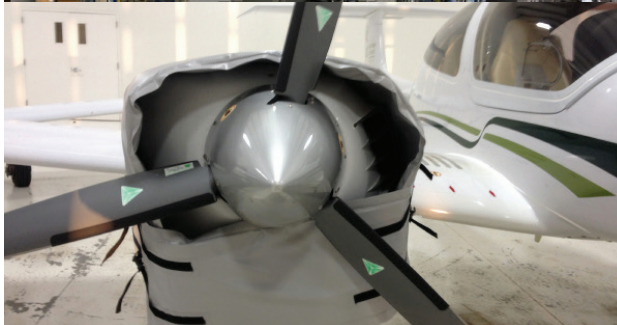
## PROCESS TEMPERATURE CONTROL

For heating, cooling, or advanced temperature control. Keep your processes at optimal temperatures.



## FREEZE PROTECTION

Save on labor costs, eliminate downtime and avoid replacing frozen equipment even in the harshest climates



Powerblanket engineers solve every kind of temperature problem from simple to very complex. Our expertise guarantees satisfied customers in a very short turnaround time.

## EQUIPMENT BOXES

Prevent freezing and avoid damage to the sensitive control valves, pressure gauges, and data-collection devices.



## TANK HEATERS

Maintain temperature, provide freeze protection, or optimize flow for viscous and temperature sensitive materials.



## PIPE HEATERS

Freeze protection for pipes, valves, and manifolds that saves time and money and prevents downtime.



## HIGHER HEAT

Powerblanket high temperature products offer consistent, regulated, safe, and evenly distributed heat for higher temperature applications. High heat solutions can be designed for almost any heater size and are available in up to 400°F.



## SAFE AND EFFICIENT

Powerblanket higher heat blankets isolate the heat from the user and surroundings with an insulated exterior that is safe to touch. High heat silicone heaters need between 600-1200 Watts to heat up products and materials. Because of the Powerblanket's insulation, fewer watts are required to heat up products and materials and to maintain heat.

# CUSTOM TANK HEATERS

Powerblanket Tank Heaters maintain temperature, heat, provide freeze protection, or optimize flow for viscous and temperature sensitive materials.

### OPTIMAL TEMPS

For temperature sensitive materials

### CUSTOM DESIGNED

To fit any equipment or system and provide ultimate freeze protection

### ENJOY PEACE OF MIND

Because your valuable materials are protected



**EDWARD SKUCHAS, ENGINEER WITH URS**

Powerblanket supplied the frac tank heating system currently working on-site. The heating system installed quickly despite rainy weather, and has protected the contents from freezing.



## WHITE'S EQUIPMENT RENTAL CUSTOM TANK HEATING

White's Equipment Rental, LLC faced a dilemma. They use Catch Tanks to capture fluids, and the chilly Marcellus winters were causing problems for these tanks. When Buck Binder, VP of Production and R&D Lead, realized the weather could cost the business thousands of dollars, he turned to Powerblanket for a custom solution.

### FROM COSTLY TO COST EFFICIENT

The secondary Catch Tanks are used for capturing detrimental fluids containing a combination of water, soap, and drill cuttings, thus preventing environmental concerns. If the Catch Tanks freeze, they prevent White's and their clients from pumping off the excess fluid. The tank can stop flowing completely or allow the fluid to pass through it into the flare. This can be costly in more ways than one.

Each Catch Tank rents for \$425 per day. If pumps fail as a result of freezing, the replacement cost is estimated at \$2,700 per pump. On top of the rental costs there are potential fines from the Environmental Protection Agency as a result of a hazardous spill. Multiply these costs by the 30 Catch Tanks currently in operation and the impact on revenue can be substantial: \$12,750 per day in rental revenue on the tanks alone; as

much as \$81,000 for a fleet of replacement pumps; and the overall impact of \$3,500 per day in unrecoverable equipment system revenue.

### CUSTOM SOLUTIONS

When Buck Binder reached out to Powerblanket, we developed a custom heating blanket fitted precisely to the Catch Tanks. By keeping the tanks warm during the cold weather, the risk of freezing was eliminated, and so was the risk that they would cause a loss in revenue. Powerblanket's custom heating solution provided White's Equipment with more than freeze protection. It provided both them as well as their clients with the benefits of sustainability, continuous production, and reduced or eliminated down time--not to mention peace of mind and the earned reputation of being a preferred energy services provider.

### WE CAN HEAT IT

Many industries protect their valuable materials with Powerblanket tank heaters: Oil & Gas, Mining, Chemical Manufacturers, Agriculture, Food Processing Plants, and Diesel Exhaust Fluid (DEF). No matter the size or shape of the equipment/system, Powerblanket's custom engineering team can create a solution. Custom heater blankets are used to maintain critical temperatures, heat, provide freeze protection, and optimize flow for viscous and temperature sensitive materials.

Freeze protection is a primary concern for many industries with tanks; however, Powerblanket's custom heating solutions provide more than freeze protection. Sustainability, continuous production, and reduced or eliminated down time, and peace of mind are all benefits of Powerblanket custom heaters.



# MCADA COLD WEATHER TANK SOLUTION

## WITH POWERBLANKET

Powerblanket Tank Heaters maintain temperature, heat, provide freeze protection, and optimize flow for viscous and temperature sensitive materials.



### GET TO KNOW MCADA

If you are in the oil industry, you know that cold weather can affect your productivity and profits. As a long-time leader in the industry, McAda Fluids Heating Services is an expert at heating the fluids needed for oil and gas well operations, including hydraulic fracturing, or “fracking.”

McAda offers the largest and most modern fleet of trucks, as well as the largest line of 35MM and 40MM BTU fluids heating units. The company provides the most efficient means for oil companies to heat fracking fluids. As a result, oil companies have taken notice; McAda works with many major and independent oil companies throughout North America.

Whether it’s a “Heat on the Fly” process to heat water from a direct water source, an on site frac tank, or a long-term, multi-well project, McAda is known for its reliability and problem-solving skills. With heating solutions like McAda’s in place, an oil company can keep its frac operations functional and efficient year round.

Even with a state of the art fleet, a solid knowledge of geology and the logistics required at unconventional shale oil projects, winter weather posed a significant challenge to productivity and efficiency for the company’s propane heating system.

### WORKING WITH POWERBLANKET

McAda worked with Powerblanket to

create a line of customized propane tank heaters, specifically designed to fit the company’s large, truck-mounted propane heating tanks. Using Powerblanket heaters to target heat distribution on the tank, optimal tank pressure can be maintained consistently. “This was an ideal solution,” said McAda. “We were just losing too much tank pressure when the needle dropped below freezing.” By using Powerblanket on its equipment, McAda was no longer forced to rely on unreliable solutions such as tarps, space heaters, and other makeshift means to keep the propane fuel tank warm.



**MCADA**

We were just losing too much tank pressure when the needle dropped below freezing. With the Powerblanket product, we can operate in the cold without any problems. It saves us time and headaches – and saves our clients a great deal of time and money.

**SAVE TIME**

Reduce downtime and increase profitability

**NO MORE STEAMERS**

Eliminate need for alternative emergency services or steamers

**ACCURATE DATA**

Protect instrumentation from freezing for accurate data retrieval

**PROTECT VALVES**

Sustain valve functionality

**SAVE MONEY**

Save on labor costs through easy installation and removal

**CUSTOM FIT**

Custom designs to fit any application



**PIPE, VALVE, & MANIFOLD HEATERS**

Weatherproof your business with Powerblanket pipe heaters. These advanced heaters offer freeze protection for your entire pipe & manifold system. The simple design eliminates the need for expensive work crews to install or remove heat trace, insulation and cladding. Unlike heat trace, Powerblanket does not have inrush current issues. Valve, manifold, and pipe heaters are custom designed by Powerblanket's world-class engineers to fit perfectly on your piping system.



Powerblanket's world-class engineering team creates custom solutions for some of the most complicated and/or unusual temperature needs for industries all over the world--and they do it quickly. Often, when your industry is unique, there is not a ready-to-ship solution for your specific temperature needs. Our products are certified to OSHA safety standards and are easy to install, use, and store. Our custom approach will provide the ideal custom solution that saves time, money and headaches.



# VALVE, ACTUATOR & INSTRUMENTATION FREEZE PROTECTION

## WITH POWERBLANKET

Weatherproof your business with Powerblanket custom pipe, valve, manifold, & actuator heaters. Keep your operations running smoothly all winter.



### WHO NEEDED A SOLUTION?

**DOMINION ENERGY QUESTAR PIPELINE, LLC** (DEQP) is a major natural gas pipeline company that provides transportation and underground storage services in Utah, Wyoming and Colorado. Owning and operating 1,888 miles of pipeline with total daily capacity of 2,530 Mdth, their system is strategically located in the Rocky Mountains near large reserves of natural gas in six major producing areas, including the Greater Green River, Uinta and Piceance basins. They transport gas from these areas to other major pipeline systems for delivery to markets in the West and Midwest including the Dominion Energy UT local distribution system serving natural gas utility customers in Utah, southwest Wyoming and southern Idaho.

**EQUISTAR CHEMICALS, LP** manufactures basic chemicals, polymers, and fuels products in North America. The company

operates in two segments, chemicals and polymers. The chemicals business segment produces and markets ethylene, its co-products and derivatives. It also produces gasoline blending components such as methyl tertiary butyl ether and alkylate. The polymers business segment produces and markets polyethylene, low density polyethylene, linear low density polyethylene, and polypropylene. The company was founded in 1997 and is based in Houston, Texas. Equistar Chemicals, LP operates as a subsidiary of LyondellBasell Industries N.V.

### WHAT WAS THE PROBLEM?

**DOMINION ENERGY QUESTAR PIPELINE, LLC** in Eastern Utah had two 12" FI215 Valves/Actuators and two 16" FI212 Valve/Actuators that were freezing up and shutting down operations. With such a large service area, this pipeline needed efficiency without pause. They recognized

that they needed a solution custom designed to their system that would ensure consistent operations even in the coldest conditions.

**EQUISTAR CHEMICALS, LP**, located in Illinois, had 12 Fisher Valves also freezing up in extreme conditions. Powerblanket worked through LyondellBasell to provide valve heaters for Equistar Chemicals.

### THE POWERBLANKET SOLUTION

Freezing conditions and cold weather negatively impact critical materials and equipment. Exposure to extreme temperatures throughout the winter months can slow or halt operations. Powerblanket's world-class engineers created the right solutions to meet the needs of both companies.

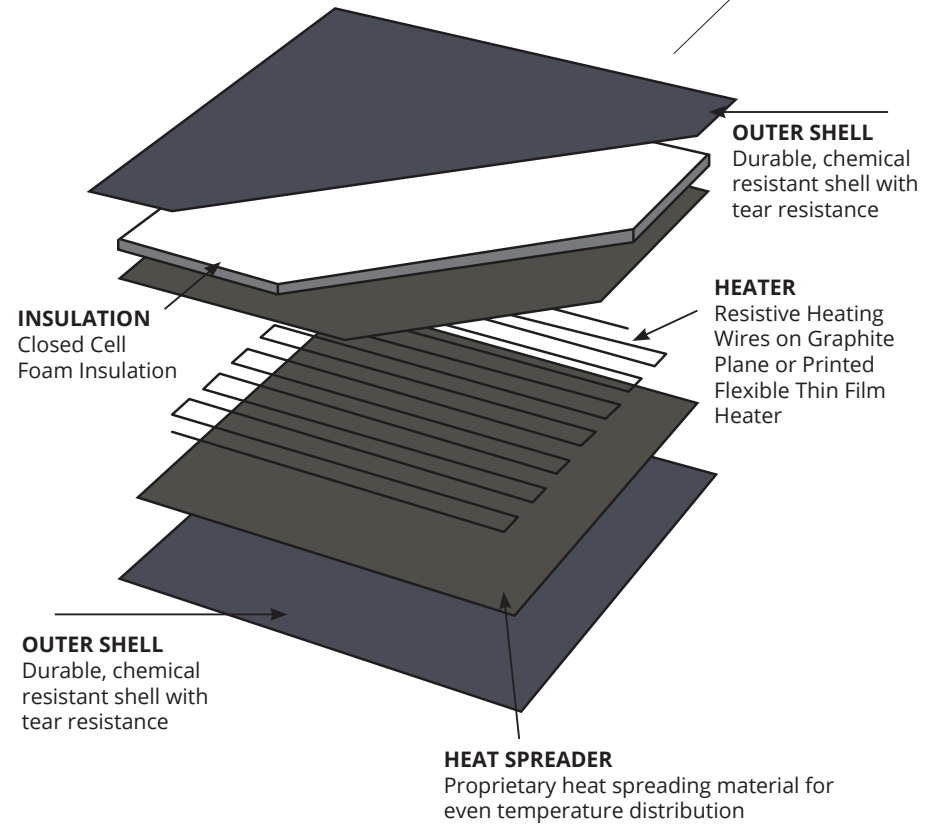
### LASTING BENEFITS

After receiving their Powerblanket custom

solutions, **DOMINION ENERGY QUESTAR PIPELINE** appreciated the ease of installation and fit tailored for their systems specific needs. They now enjoy peace of mind knowing that their operations will not be stalled because of frozen valves and their customers will not have interrupted service.

The 12 Fisher Valves of **EQUISTAR CHEMICALS, LP** are wrapped with even heat that protects the instrumentation and sustains the valve functionality. Since the Powerblanket install, they are not concerned about downtime due to freezing temperatures and they have peace of mind knowing that Powerblanket products are manufactured to stringent safety standards. They have found a lasting solution.

<p><b>EVEN HEAT</b> Even and efficient heating cures epoxy effectively</p>	<p><b>QUICK LEAD TIMES</b> Best in industry lead time with new custom designs in 1-2 weeks</p>	<p><b>EFFICIENT</b> Eliminates the need for costly alternative heating solutions</p>	<p><b>SPEED UP CURING</b> Decreases curing times allowing increased throughput</p>	<p><b>PORTABLE</b> Can be used for production and in field repair</p>	<p><b>DURABLE</b> Longest lasting curing blankets on the market</p>
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# EPOXY & COMPOSITE CURING BLANKETS

**POWERBLANKET EPOXY CURE BLANKETS**

- Available in any width and length required
- Up to 80 Watts per Square Foot
- Maximum internal blanket temperature: 200 ± 9°F (93 ± 5°C)

**CUSTOM HIGHER TEMPERATURE SOLUTIONS**

- Custom solutions up to 400° F and 300 watts per square foot

**CUSTOM FIT**  
Custom designs to fit any application



**PROTECT**

Safely heat and protect critical materials and equipment without overheating or burning

**OPTIMIZE**

Improve overall efficiency of your operation with Powerblanket Total Temperature Control

**SAVE**

Prevent waste, lost time, and unnecessary labor costs. Powerblanket protects your bottom line.

**INSULATED**

Powerblanket robust vinyl shell retains heat

**WEATHER RESISTANT**

Can protect as low as -40°F /-40°C)

**EVEN HEATING**

Patented heat spreading technology



Powerblanket protects valuable equipment and fluids from freezing or overheating, and prevents project setbacks and unnecessary costs associated with adverse conditions by providing total temperature control.

# HEATING AND FREEZE PROTECTION

Powerblanket products can help you protect your critical assets against the threat of failure, downtime, and hazardous conditions.

- Save labor costs and downtime through easy installation, removal and reinstall
- Protect down to -40°F/-40°C
- Highly efficient and evenly-distributed heat
- Ability to meet CID2 hazardous location requirements
- Wind and water resistant
- Ensure smooth operation
- Custom designed to fit your specific needs
- Certified to UL/CSA standards

# POWERBLANKET PRODUCT LINES

## TO FIT YOUR NEEDS

The Powerblanket product line has provided an economical solution to the many heating problems you and your business face. Our versatile blend of patented technologies provide portable and easy-to-use freeze protection, insulation, and heating. Now, in an effort to better serve the needs of an ever-growing customer base, Powerblanket offers two options in heating and freeze protection.

*powerblanket*



*powerblanket  
 lite*



The **POWERBLANKET** product line is designed for any definitive heating job. Each product is built with a rugged vinyl shell that is safe to use in temperatures as low as -20°F (-29°C). You can be sure that Powerblanket products will keep your equipment warm when temperatures drop well below freezing.

The **POWERBLANKET LITE** line is designed for smaller scale heating jobs. These models feature a lower power density, but rest assured, these heaters are the real deal. They are more energy efficient and safer than other heating elements on the market.

## HAPPY CUSTOMERS



### **PBL55F POWERBLANKET LITE FULL COVERAGE DRUM HEATER**

"I was so happy to receive this heated cover for my hot water heater. I am in New England and we have been in sub zero temperatures for a week, which is a very long time for our location. My hot water heater in the the garage, which is not insulated, and I was terrified that the heater would freeze. I received this Powerblanket and it was very easy to "install". You just wrap it around the heater, tighten with the velcro straps and plug in. It got warm right away and there has not been a problem. I wish I had ordered this years ago."

### **BH55RR-100 DRUM HEATER**

"Used this product at work to keep our barrel of DEF from freezing. Kinda pricey but for a quality product it's completely worth every penny. Even on the coldest days in the storage trailer, this wrap keeps our DEF "warm to the touch."

### **PBL05 PB LITE 5-GALLON PAIL HEATER**

"Love this thing!!! I use it to warm my soaping oils and it's marvelous. I have it wrapped around my buckets and at around \$100 it's way more cost-effective than using the water heated tanks (which are like \$800). I will be buying more of these for my additional pails."

### **BH55RR-100 DRUM HEATER**

"This is perfect for my operation. Especially this time of year when you pull in an ingredient and it's solid. We just put this on the night before and when we come in we have a liquid ready to use. Very easy to wrap and remove."

### **PBL20 PB LITE GAS CYLINDER WARMER**

"Excellent propane tank warmer for cold weather grilling! I purchased this item to use with my infrared grill I recently bought from Woot. I grill year-round knew that the new grill would not work when it got below 40F. The LP would not vaporized fast enough to keep the grill going. My first usage of the blanket was at an air temp of 32F, with all three burners going at full blast I had plenty of fuel. With an IR temperature probe I measured a temp of around 65F on the top of the tank just above the blanket. Needless to say I am very happy with my purchase and highly recommend it to anyone wanting to grill in the winter."



**VERSATILE**

Work on both steel and poly drums

**FULL-COVERAGE**

Provide an insulated, full-wrap design

**SAFE**

Deliver safe, distributed heat to temperature sensitive materials

**PROTECT**

Preserve expensive materials without overheating or burning

**NO MORE WASTE**

Prevent product waste by safely maintaining consistent temperatures

**VISCOSITY**

Improve viscosity and flow with easy-to-apply controlled heat

Hazardous Area CID2 Products Now Available!



**WE HAVE OPTIONS**

**PRO SERIES:** Includes a thermostatic controller for optimal control which allows you to adjust temperatures from ambient up to 145°F / 63°C (± 5°F / 3°C)\*

**RR SERIES:** Utilizes the Rapid Ramp technology to quickly heat materials to a pre-set safe 100°F/38°C (± 10°F / 6°C), or 80 or 120°F.\*

**HAZARDOUS LOCATIONS SERIES:**  
CID2 Hazardous area product options available

**STANDARD SIZES:** Available in 5 gallon bucket size and sizes for 15, 30, and 55 gallon drums

**ACCESSORY PRODUCTS:** Improve thermal insulation with insulated top and bottom accessory products

\*Product Temperatures may vary depending on boundary conditions

**DRUM & BUCKET HEATERS**

Drum heaters are one of the most popular lines of Powerblanket products. The innovative design has changed the conventional method of heating materials by providing targeted and evenly distributed heat to the surface of the drum, thus eliminating hot and cold spots.



**MIKE ROBERTS, MANAGER HOWARD MARTEN FLUID TECHNOLOGIES**

Powerblanket drum and bucket heaters are a drastic improvement over the original band heaters we used to offer. With Powerblanket products we no longer have to worry about overheating or unpredictable thermostats. The Powerblanket Technology provides uniform heat throughout the entire barrel of product which is paramount to what we do. Powerblanket products are very durable, look great, and are the only heaters we will offer our customers.

**EVEN & SAFE**

Distribute heat evenly around the tote and safely heat a wide variety of materials

**WEATHER RESISTANT**

Designed to be durable and weather resistant

**EASY ACCESS**

Provide easy access with a removable top

**CONTROLLER**

An adjustable thermostatic controller and internal thermostats keep temperature in spec

**PROTECT THE PUMP**

Fully enclose and heat the tote and pump housing unit

**CUSTOMIZE**

Customized DEF bulk storage tanks available upon request

*\*330 gallon version features flap to easily access pump*

1



2



3



**Hazardous Area CID2 Products Now Available!**

**TOTE & DEF TOTE HEATERS**

Powerblanket tote heaters maintain optimal heating conditions for temperature sensitive materials and solve viscosity issues. Powerblanket DEF tote Heaters are temperature specific to protect Diesel Exhaust Fluid from freezing. Whether you need temperature control for storage or active use, Powerblanket tote heaters will make a difference.

**Q**

**WHEN DOES DEF FREEZE?**

**A**

DEF, because of the urea content, does not have the freezing point of water. The urea mixture has a much lower freezing point of 12°F/-11°C. This solution doesn't break into just urea and just water, either. The solution freezes at the same rate, and also thaws at the same rate. This means that at no point does the DEF freezing cause the solution to become over concentrated or diluted. DEF will begin to slush and then freeze. No one wants to deal with the inconvenience of frozen DEF.



**PROTECT**

Preserve temperature sensitive materials

**EASY INSTALL**

Quickly and effortlessly install the compact portable design

**DIRECT HEAT**

Localize heat and save money by not heating a warehouse or building

**EFFICIENT**

Lower energy-related costs with the highly efficient design

**3**

**OPTIONS AVAILABLE**

**POWERBLANKET LITE HOTBOX**

- 2 sizes available: Fits 40"x48" or 36"x48" pallets
- 800 Watt design
- Preserves temperature sensitive material
- Quick and easy assembly for portability and storage
- Great solution for palletized products: paint, caulk, resins and epoxies, etc.
- Two side access doors on opposite sides
- Certified to UL/CSA standards
- A durable, vinyl shell

**POWERBLANKET HOTBOX**

All the features of the Powerblanket Lite Hot Box, plus:

- Higher wattage (1200 Watts) for faster heating times & more extreme conditions

**PREMIUM HOTBOX**

The Premium Hot Box provides all the features of the Powerblanket model but also offers:

- A larger footprint (Fits 48" x 48" pallet)
- An internal steel frame
- The highest wattage (1440 Watts)
- A controller for precise temperature regulation

**BULK MATERIAL WARMERS**

Powerblanket Hot Boxes efficiently heat temperature sensitive materials such as paints, roofing materials, chemicals, epoxies, resins, equipment, and pallets of any material. Easily moved from job to job, hot boxes are ideal for cold weather storage, freeze protection, transporting, job site heating, remote location use, and winter roofing.



**VERN FIEHLER, OF QUICK ROAD REPAIR IN ALASKA**

Vern Fiehler, of Quick Road Repair in Alaska, saves money by keeping his product from overheating, which is what happened with his previous method of heating. Vern met with the field maintenance crew of the Juneau Alaska International Airport to demonstrate his product, Instant Road Repair (IRR). For his demonstration, he tried to bring IRR up to a workable temperature using a forced air ceramic heater. During his presentation the product did not perform well because his product overheated 40°F / 22°C above the maximum recommended temperature. That not only cost him the entire pallet of material but he was also embarrassed. Since this disaster, Vern uses the Powerblanket Hot Box.

*\*Heat circulation results can vary. For more precise temperature control a circulation fan is recommended.*





**PROTECT**  
Preserve temperature sensitive materials

**EASY INSTALL**  
Quickly and effortlessly install the compact portable design

**DIRECT HEAT**  
Localize heat and save money by not heating a warehouse or building

**EFFICIENT**  
Lower energy-related costs with the highly efficient design



**CHANGE YOUR WINTER ROOFING EXPERIENCE**

- Keep roofing materials warm.
- Prevent tools and equipment from freezing.
- Stay on track
- Save money by preserving critical materials
- Work all season long

# ROOFER HOT BOXES

Powerblanket Hot Boxes efficiently heat temperature sensitive materials such as paints, roofing materials, chemicals, epoxies, resins, equipment, and pallets of any material. Easily moved from job to job, hot boxes are ideal for cold weather storage, freeze protection, transporting, job site heating, remote location use, and winter roofing.



## MITCH DICKINSON, OF OUTSIDERS ROOFING IN RICHFIELD, UTAH

*Mitch Dickinson with Outsiders Roofing in Richfield Utah saves time and money with a Powerblanket Hot Box. Prior to owning a hot box, the company struggled when the winter temperatures got too cold in the mountain region of Utah. Roofing materials were hard to work with and their equipment would freeze up, causing installation issues and delays. Now, Mitch has his crew set up a hot box and keep it turned on throughout their job. "We use it quite a bit to prevent problems with cold weather and to have our materials warm when we are ready to use them, says Mitch. They put everything from shingles and caulk to their compressor and nail guns in the hot box. Some of the crew have even snuck into the hot box to warm up or to warm up their gloves on particularly cold days.*

**BETTER PERFORMANCE**

Increase performance and efficiency of gas cylinders

**SAVE MONEY**

Save money by optimizing gas and material usage

**FEWER REFILLS**

Eliminate unnecessary cylinder refills in cold weather

**FULL-COVERAGE**

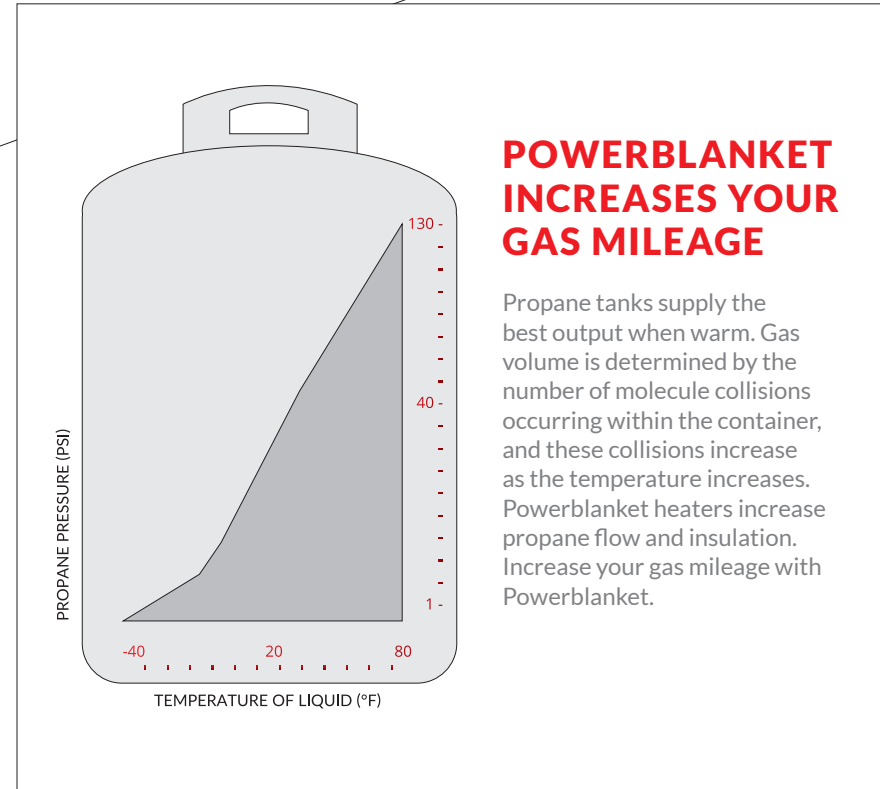
Insulated full-wrap design

**SAFE**

UL/CSA safety certified

**VISCOSITY**

Improve viscosity and flow on any tank



**GAS CYLINDER HEATERS**

Powerblanket has the best gas cylinder heaters on the market. Our heating blankets will overcome the effects of cold weather and maintain pressure and efficiency on any gas cylinder. If you have a home, cabin, or business fueled by propane, you know how frustrating and expensive it can be when your propane pressure decreases in cold weather.



A large US railroad company uses these heaters to keep snow off the tracks. By applying Powerblanket Gas Cylinder Warmers to their 1000 lb propane tanks, they power their generators along the railway system. Before using the Powerblanket heaters, the cold temperatures kept the propane from vaporizing, which made it more difficult to remove snow because the generators did not work.

# ENDURAPLAS AGRICULTURAL SOLUTIONS

## WITH POWERBLANKET

Enduraplas is a plastics manufacturing company that produces solutions for the agricultural industry. From large water tanks to fueling capsules, Enduraplas offers a wide range of liquid storage and transfer units.



### OPERATING WITH PROPANE

Many of Enduraplas' operations require the use of propane stored in propane tanks that require regulated temperatures to maintain optimal pressure. Despite the technology they had behind their manufacturing process, their propane tanks were still losing pressure in cold weather, and they needed a solution.

Propane is a vital component in Enduraplas'

manufacturing process, making their large propane tanks an invaluable asset. In fact, Enduraplas uses enough propane that they need to pigtail two or more tanks together in order to make one large tank, eliminating the necessity to switch connections from an empty tank to a full one. However, this system caused a problem with maintaining the pressure in the tanks, especially when cold weather set in.

"We found that we were losing significant pressure in our tanks when the temperature dropped below freezing" said Enduraplas' manufacturing manager. "The pressure in the tanks fell low enough that the pigtail application stopped working altogether."

### COLD WEATHER AND GAS PRESSURE DON'T MIX

Tank pressure can be drastically affected by cold temperatures, due to the nature of

cold weather and molecular density. When temperatures drop, so does the pressure a fluid or gas can maintain, as the molecules move closer together. Keeping a tank at a temperature that will maintain the proper pressure may seem next to impossible, especially since most propane is stored outside even during the winter months.

### A POWERBLANKET SOLUTION

Thankfully, with Powerblanket's propane heating blankets, Enduraplas delivered an even and consistent distribution of heat to their propane tanks during the coldest of days. The tanks remained at the ideal temperature and maintained optimal pressure, despite big drops in temperature.



### ENDURAPLAS MANAGER

Powerblanket's propane heaters worked so well that we actually only ended up having to wrap one tank per pigtail. The blankets maintained a high enough pressure that the propane transferred to the next tank without any problem.



**FASTER**

Cure concrete 2.8 times faster than conventional, insulated blankets

**STRONGER**

Produce cold weather concreting strength of up to 3,925 psi in 72 hours

**MAINTAIN MOISTURE**

Maintain moisture throughout hydrating process

**EASY TO USE**

Easily installed and removed

**BEAT THE COLD**

Prevent a freeze cycle

**COMPLIANT**

Maintain ACI compliance for cold weather concreting



**CURE**  **PRO**

Now offering our professional series of concrete curing blankets with maximum durability for the toughest jobs!



**DALE HELMING, PROJECT MANAGER MASSMAN CONSTRUCTION**

We didn't have the time to wait out the winter for the temperatures to become more moderate. The Powerblanket heating blankets certainly played an important role in keeping us on schedule and not having to postpone the pour on an important Kansas City bridge.

**CONCRETE CURING BLANKETS**

Powerblanket Concrete Curing blankets provide a manageable way to cure concrete effectively and confidently in the cold weather months. Even in warm weather, Powerblanket Curing Blankets increase production by rapidly curing with consistent, even heat. Year round applications include: precast, concrete counter tops, and decorative concrete.



**CONCRETE CURING IN WIND AND COLD WEATHER**

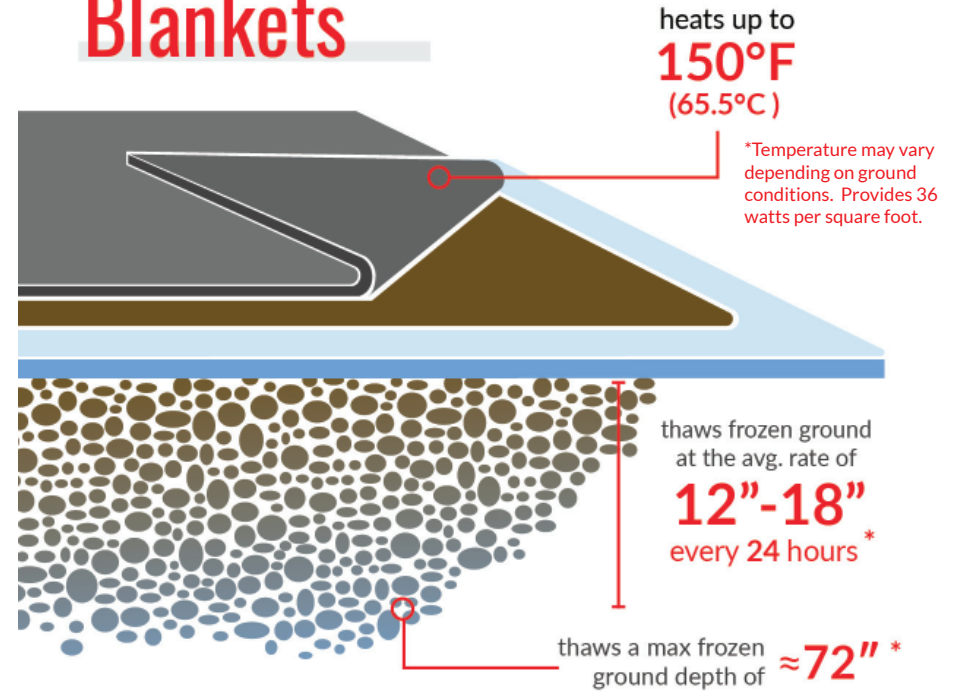
Reilly Construction of Wrightstown, NJ won a bid from the U. S. Department of the Interior, National Parks to replace the roof of The Great Hall Statue of Liberty National Monument. Reilly used five MD0520 concrete curing blankets to cure the masonry block work at the proper temperature (~50°F/~10°C) during December in New York and with the added chill of the water.

- HOT**  
High watt density thaws frozen ground
- QUICK**  
Quickly remove frost prior to concrete pour
- MELT**  
Melt snow and ice from roofs, walkways, and construction areas
- EASY TO USE**  
Easily installed and removed
- CONTROL**  
Provides higher heat control when combined with a thermostatic controller
- SAVE**  
Saves time, money, and labor

**thawpro**

Now offering our professional series of ground thawing blankets with 20% more power and maximum durability for the toughest jobs!

# Ground Thawing Blankets



\* results depend on ground composition and ambient conditions

## GROUND THAWING BLANKETS

Don't let the inconvenience of snow, ice, and frozen ground slow down your operations. The high-watt density in Powerblanket Ground Thawing Blankets help tackle the difficulty of thawing ground in harsh climates, thawing 12-18 inches of ground per day.



**KIM HERMAN OSP/COEI OPERATIONS MANAGER  
PRECISION UTILITIES GROUP**

Your blankets are absolutely excellent. Thanks to the Powerblankets we quickly thawed the ground to complete our job. We estimate a savings of 10 hours per site equaling a savings of \$5,000 already. Calculating this to our thousands of sites, the savings is huge!

**FITTED**  
 Cinch straps to secure tight fit

**ONE HEAT ZONE**  
 Blanket temperature goes from ambient to 90°-110°F--preserves nutrients at hive temps

**EFFICIENT**  
 Highly efficient design saves time and energy

**VERSATILE**  
 Works on both poly and steel buckets/pails

**PROTECT**  
 Prevent overheating your honey and help minimize crystallization

**SAFE**  
 All models are certified by ETL to UL & CSA safety standards and water resistant



## HONEY PRODUCTS

The Powerblanket Bee Blanket heating solution will maintain the same temperature as a hive. With low-level internal thermostats, you can apply the Bee Blanket and leave it be. There's no need to worry about overheating your honey, because the Bee Blanket will never get too hot.

With this insulated vinyl heat blanket, you can heat your honey to the ideal temperature and maintain the viscosity required for bottling and managing honey stores.

## ZELLER AND SONS CRYSTALLIZED HONEY SOLUTION

Zeller and Sons Honey, a family-owned business based in northern Wyoming, manufactures sweet and delicious mild clover honey. They produce thousands of pounds of honey a year as well as other confections with chocolate and honey.

### WHAT WAS THE PROBLEM?

Zeller and Sons harvests the honey straight from the hives and stores it in big barrels. At first, they didn't have an efficient way to get the crystallized honey out of the barrels. Once the honey is harvested, it begins to crystallize which makes the honey very thick and hard. In order to jar the honey, they need to decrease the viscos-

ity. Warming honey can be difficult. If the temperature gets too hot too fast, the honey will darken and lose essential nutrients. Most beekeepers use big tanks of warm water to submerge a bucket of honey and wait for the honey to decrystallize. Although this method works, it takes a long time and may ruin the honey because it is difficult to manage the exact temperature of the water.

### THE POWERBLANKET SOLUTION

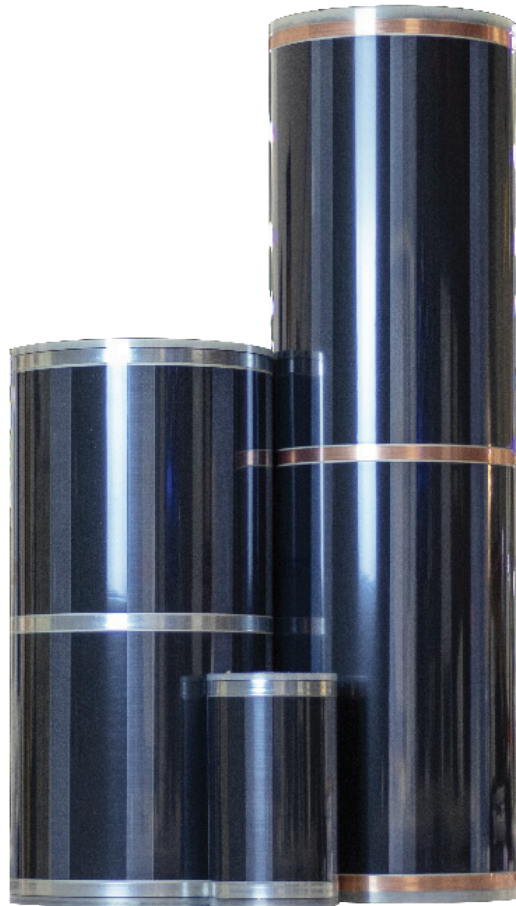
With the Bee Blanket, Zeller and Sons warm high quantities of honey at a time without having to worry about the temperature rising too much. The warming blanket not only decrystal-

lizes the honey, but it also keeps it warmed to the exact temperature needed. Ben Zeller, who has been beekeeping for over a decade, said, "Before, it was easier for the honey to go dark and it took much longer to get it to flow." He explained, "I use the blankets as a heater to decrystallize the honey. After it's fluid, we keep it consistently warmed at 95°F using the Bee Blankets."

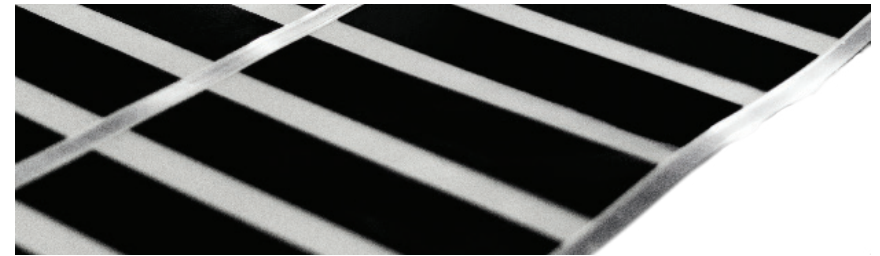
### LASTING BENEFITS

Since Ben Zeller began using Bee Blankets, he is now able to warm 6,000 lbs of honey at a time rather than just 600 lbs. This has saved him a great amount of time and effort and has sped up production times tremendously.





You know Powerblanket as the leader in total temperature control. From construction to manufacturing, Powerblanket products have you covered. Now, Powerblanket has developed a flexible, electric radiant heating film that maximizes heat transfer and energy efficiency



**FULLY CUSTOMIZABLE**

Easily integrate our heating solutions into your product/technology

**INCREASE PROFITS**

Enhance your product offering & increase revenue.

**QUICK TURNAROUND TIME**

The Powerblanket team will design, build, and ship your solution quickly, saving you time and money.

**TEMPERATURE CONTROL EXPERTISE**

Leverage our extensive expertise in temperature control to develop the perfect solution for your application.

**MANUFACTURING EXCELLENCE**

Our award winning manufacturing processes and expertise deliver high volumes and demanding requirements with ease.

**powerblanket**  
**CORE**  
**OEM**  
**HEATING**  
**SOLUTIONS**

Powerblanket Core is a revolutionary thin heat technology that can be applied to numerous residential, commercial, and industrial applications. The Powerblanket carbon ink and heater are wrapped in a thin, water-tight laminate. OEM customers can embed Powerblanket Core elements inside or adjacent to their standard products to create innovative, new products with features such as heating or deicing.