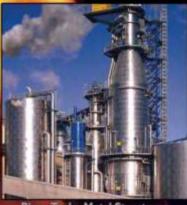
Join the Leaders of Industry Who Are Saving Energy & Saving Money with Award-Winning Syneffex™Coating Technology



Heat Process Equipment



Food/Pharmaceutical Manufacturing



Pipes, Tanks, Metal Structures



Building Energy Efficiency



Environmental Remediation



Government/Bledense Applications

Exceptional thermal insulation with excellent corrosion prevention and resistance to moisture, mald, chemicals and fire.

Learn what our Patented Syneffex™ product line can do for You!



Toll Free: 800-858-3176 Phone: 1-303-228-3701 www.syneffex.com

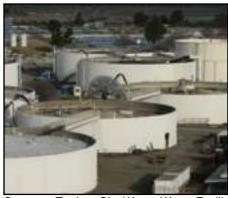
JOIN THE LEADERS OF INDUSTRY WHO ARE SAVING ENERGY AND PROTECTING ASSETS WITH SYNEFFEX™ PRODUCTS



Steam Boiler - Textile Facility



Airway Bridges - International Airport



Concrete Tanks - City Waste Water Facility



Aluminum Panels - Airport Facility



Yarn Dye Machine - Textile Facility



Heat Exchanger - Brewery



Building Exterior - Manufacturing Plant



Skylights - Art Museum



Industrial Oven - Food Manufacturer



Steam Lines - Chemical Plant



Vehicle Protection - Manufacturer



Oil Pipelines - Offshore Platform



We are the People who Bring the Best of Science to the World's Great Companies.



SYNEFFEX™ INDUSTRIAL COATINGS

THE ART OF SCIENCE
THE WISDOM OF INDUSTRY
DEDICATION TO EXCELLENCE
NANOTECHNOLOGY IS HERE

The award-winning patented Syneffex™ insulation & protective coatings have provided unique coating solutions for energy savings and asset protection since 2004 to the commercial, institutional and industrial market sectors. The products are the next generation of effective industrial and commercial coatings combining performance characteristics that previously required multiple products to accomplish: thermal insulation, corrosion protection, chemical resistance, fire resistance, mold resistance, and UV & moisture resistance. Syneffex™ products also include NSF registered (formerly known as USDA registration) thermal insulation and mold resistant coatings suitable for food processing and pharmaceutical facilities and lead encapsulation coatings for environmental remediation.

Nanotechnology Has Enabled the Next Generation of Clear, High Performance Coatings

Syneffex™ industrial coatings utilize a nanocomposite with an extremely low thermal conductivity and high hydrophobicity. This material allows the coatings to effectively inhibit heat transfer in an ultra thin layer. The coatings offer a revolutionary advancement to the traditional concept of thermal insulation and asset protection, providing longer performance as well as corrosion prevention, and mold, moisture, chemical and flame resistance.

Syneffex™ insulating products have helped companies reduce their overall energy costs related to heat producing processes by 20% or more.

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Syneffex Denver, CO 80202

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STEAM SYSTEM COMPONENTS



CASE STUDY - STEAM BOILER, VALVES & HEAT EXCHANGERS

Customer Savings: \$460,000/year in energy costs

Customer: Henateks Textile needed an effective solution to reduce their energy costs.

Application: Syneffex™ High Heat at a thickness of approximately 15 coats painted onto Heat Exchangers, Steam Boilers, Steam Pipes, LNG Burners, Dye Machines.

Material Cost for Project: \$200,000

Payback Period: 7 months

Energy costs reduced by approximately 20%

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

1) OBJECTIVES

REDUCE ENERGY USE

INCREASE PROCESS EFFICIENCY

Water-based acrylic and epoxy systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Reduction in Energy Consumption
- √ Short Payback Period (typically 6 to 18 months)
- √ Easy Application
- √ Long-Term Performance
- √ Safety Reduce Surface Temperature
- √ Fits Any Shape or Size of Equipment
- √ Impervious to Moisture, Dust, Chemicals

3) NOTES

Syneffex[™] industrial coatings and epoxy systems provide an easy way to coat heat exchangers, steam boilers and associated piping.

A spray application can often be done when the equipment is still in operation, minimizing or eliminating downtime. The cured coating is moisture resistant. The insulating ability will not be affected by steam or infiltration of moisture, a major problem with other types of insulation. Additionally, Syneffex™ provides excellent corrosion resistance, protecting and increasing the longevity of valuable equipment.

Many companies are working to lower fuel costs. Energy intensive processes dealing with steam and hot water make up a significant amount of monthly energy costs. Syneffex™ High Heat and EPX reduce energy and maintenance costs.

Start Saving Money Each Month Insulate Now

HEAT PROCESS EQUIPMENT

1) OBJECTIVES

INSULATE DYE MACHINES

SAVE ENERGY

Epoxy system to insulate, reduce energy consumption, reduce surface temperature, lower carbon emissions and improve worker safety.

2) BENEFITS

- √ Thermal Insulation
- √ Chemical Resistance
- √ Reduced Carbon Emissions
- √ Reduction in Energy Consumption
- √ Reduce Hot Surface for Worker Safety
- √ Easy Application
- √ Long-Term Performance
- √ Impervious to Moisture, Dust, Chemicals

"As a business we have an ongoing commitment to reducing our impact on the environment and continuously improving the working conditions in our facilities worldwide. Having comprehensively tested Syneffex™ coatings we found they significantly reduced process energy whilst standing up to the harsh environment of an industrial dye house. We anticipate the change will have a dual effect: reducing our process steam consumption by over ten percent - and therefore our carbon footprint by around two percent - and significantly improving the working conditions in our dye houses, which is great news for both our business and the environment."

-Coats plc





CASE STUDY - GLOBAL SUSTAINABILITY PROJECT Expected energy savings of over 10%, expected reduction in GHG Emissions of 2%

Customer: Coats plc needed to find a solution to reduce energy consumption in their plants globally to lower costs, reduce their carbon foot print and also improve employee health and safety.

Application: After extensive energy saving studies were completed on Syneffex™ insulation coatings in two of their dyehouses, Syneffex™ was chosen as a key component of their corporate sustainability initiative to reduce energy consumption and lower carbon emissions in factories in 28 countries. Syneffex™ High Heat and Syneffex™ EPX-H2O were used on the exterior of their yarn dyeing machines.

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

PIPES, PIPELINES & OFFSHORE



CASE STUDY - OFFSHORE OIL PLATFORM PIPING Temp Reduction: 32F (18C)

Customer: Sipetrol's AM6 offshore platform. Customer needed to reduce heat loss during pipeline transportation of petroleum product.

Application: Syneffex™ was applied in three coats for a total average thickness of 350 microns to exterior of the above water pipeline. Surface temperature of pipeline was measured to determine reduction of heat loss from petroleum products.

Prior to application, the average temperature of the pipeline exterior was 140F (60C). With Syneffex[™] the average temperature of the pipeline exterior was 107.6F (42C) resulting in significant energy savings.

Recommended Products



Syneffex™ PT up to 256F (125C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

1) OBJECTIVES

ELIMINATE CORROSION UNDER INSULATION (CUI)

INSULATE & PROTECT "ALL IN ONE"

Water-based acrylic and epoxy systems insulate and protect from corrosion. Exterior coatings for oil & gas pipelines, steam pipes, processing lines, hot/cold water pipes and more. Can be applied to both metal and non-metal substrates.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Application In Field or In Production
- √ Solution for All Climates
- √ Long-Term Performance
- √ Eliminates CUI (corrosion under insulation)
- √ Clear Solution that Allows Visual Inspection
 Through the Insulation Coating

You Can Now Choose an Insulation Alternative that Stands Up to Severe Marine environments With No Loss of Performance

CASE STUDY - STEAM PIPES

Temp Reduction: 202F (112C)

Customer: Chemical facility that needed an effective steam line insulation to provide significant temperature reduction without adding bulk to the line. Customer also needed to prevent CUI.

Application: Syneffex[™] High Heat was applied as a primer coat, followed by 1/2" of Syneffex[™] EPX Epoxy System (comprised of four 1/8" coats).

Customer achieved the desired temperature reduction from 302F (150C) down to 100F (38C) while only using a half inch of insulation. The Syneffex[™] application also eliminated CUI.

TANKS

1) OBJECTIVES

INSULATE TANKS

PREVENT CORROSION

Water-based acrylic systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion and mold.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Mold Resistance
- √ Reduction in Energy Consumption
- √ Clean Insulation Safe for Food Processing
- √ Easy Application
- √ Long-Term Performance
- √ Impervious to Moisture, Dust, Chemicals
- √ U/V Resistant

3) NOTES

Syneffex™ industrial coatings for tanks provide effective insulation in all types of environments, including severe service environments, as well as superior corrosion resistance in a low VOC, environmentally friendly formulation. Syneffex™ coatings offer superior protection for your tanks, and more importantly, what's inside them.

CASE STUDY - PETROCHEMICAL

Solution: Significantly reduced product loss due to vaporization

Customer: A petrochemical facility in the Middle East needed to reduce product loss due to vaporization of methanol inside storage tanks. Traditional insulation could not be used due to the high humidity in the region.

Application: Syneffex™ High Heat as applied to the exterior of the above ground methanol tanks.

Syneffex™ provided a thin film solution which was effective in the demanding environment, significantly reduced the vaporization and offered long-term asset protection.



CASE STUDY - REFINERY

Solution: Provided a weather resistant solution for insulation and corrosion prevention

Customer: Galp Energia was looking for an effective way to insulate pipelines and fuel oil storage tanks, and found a unique solution with nanotechnology-based Syneffex™.

Application: Syneffex™ Translucent PT was first used on oil pipelines, and next on four large fuel oil storage tanks at their Matosinhos refinery.

Syneffex[™] provided a thin film solution which insulated effectively, lowered surface temperatures, and prevented corrosion of the pipes and tanks.

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ PT up to 256F (125C)

Clear acrylic Insulation Corrosion Resistance 1-part system Apply w/ sprayer or brush Direct-to-metal

TEXTILE MANUFACTURING EQUIPMENT



CASE STUDY - DYE HOUSE

Customer Savings: \$100,000/year in energy costs

Customer: Dyehouse for two of the world's largest sports apparel manufacturers. Customer wanted to simultaneously reduce energy costs and improve dye lot consistency.

Application: Syneffex™ High Heat applied to LNG Burners, Dye Machines, Industrial Dryers, Steam Pipes, Valves, Hot Water Storage Tanks.

Material Cost for Project \$40,000 Payback Period: 4 months Energy costs reduced by 10%

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

1) OBJECTIVES

MOISTURE RESISTANT INSULATION ENERGY SAVINGS

Water-based acrylic and epoxy systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Easy Application
- √ Long-Term Performance
- √ Reduction in Energy Consumption
- √ Short Payback Period (typically 6 to 18 months)
- √ Improved Dye Lot Consistency
- √ Fits Any Shape or Size of Equipment

Reduce Energy Use Reduce Costs, It's that Simple

CASE STUDY - TEXTILE FACILITY

Reduced heat-on cycle use more than 50%

Customer: Erenko Textile, a large Turkish textile company, needed to reduce their energy consumption and also wanted to improve dye lot consistency.

Application: Syneffex™ High Heat applied to Dye Machines and Heat Exchangers.

"We have closely monitored a dyeing process which takes place at 60C for a 60 minute reaction time; the steam-based heat-exchanger of the un-insulated machine needed 24 heat-on cycles, whereas Nansulate machine's heat-exchanger only needed 2 heat-on cycles. This proves that by proper insulation, heat losses are minimized, it also shows that oscillation of temperature is decreased.

With a Nansulate coated dyeing machine, we have observed that the colour of fabric was surprisingly identical to one another, whereas in un-insulated machine, there is always a small difference in colour."

-Ahmet Turgut, Factory Manager, Erenko Tekstil

INDUSTRIAL DRYERS AND OVENS

1) OBJECTIVES

HIGH HEAT INSULATION REDUCTION OF ENERGY USE

Water-based acrylic and epoxy systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Reduction in Energy Consumption
- √ Easy Application
- √ Long-Term Performance
- √ Reduce Surface Temperature to Safe Touch
- √ High Heat Capability

3) NOTES

Syneffex™ coatings provide excellent insulation for industrial ovens and dryers, reducing energy consumption, lowering high heat surface temperatures without inceasing flammability.

Syneffex™ water-based acrylic coatings are

CASE STUDY - CASA BAKING OVEN

Temp Reduction: 36F (20C)

Customer: Holiday Snacks Ltd. needed to reduce hot surface temperatures for worker safety and also wanted to find an insulation that was safe to use around food manufacturing environments.

Application: Syneffex[™] High Heat was applied on the exterior of their Casa Oven at a thickness of approximately 6 coats (300 microns/2 mils dry film thickness).

Customer achieved the desired temperature reduction from 203F (95C) down to 167F (75C) on their oven, as well as temperature reductions for their vents and peanut fryer.



CASE STUDY - INDUSTRIAL OVEN

Temp Reduction: 53F (29.5C)

Customer: LS Industries, a designer and manufacturer of large metal cleaning equipment and industrial ovens, needed to reduce surface temperature on the exterior of their ovens to a worker safe level, and also needed to increase energy efficiency of their units.

Application: Syneffex™ High Heat applied to the exterior of five Heat & Block Blaster ovens.

With the typical three coat coverage (approx. thickness of 7 mils DFT), surface temperature was reduced from 168F (75.5C) to 115F (46C) - a reduction of 53F (29.5C). Energy efficiency of the equipment was also increased.

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

FOOD MANUFACTURING EQUIPMENT



CASE STUDY - GRUPO MODELO Temp Reduction: 36F (20C)

Customer: Grupo Modelo Brewery (makers of Corona Beer) needed to insulate, reduce surface temperature and protect equipment.

Application: Syneffex™ High Heat coated onto heat interchangers.

With a typical three coat coverage (approx. thickness of 7 mils DFT), surface temperature was reduced 36F (20C). Corrosion on equipment was eliminated.

1) OBJECTIVES

REDUCTION OF ENERGY USE FOOD ENVIRONMENT SAFE INSULATION

Water-based acrylic coatings that insulate, reduce energy consumption, reduce surface temperature and are safe for incidental food contact surfaces.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Resistance to Mold and Moisture
- √ Easy Application
- √ Long-Term Performance
- √ Reduce Energy Consumption
- √ Reduce Surface Temperature to Safe Touch
- √ Fits Any Shape or Size of Equipment
- √ Impervious to Moisture, Dust, Chemicals
- √ Energy Protect is safe for incidental food contact surfaces

3) NOTES

Syneffex™ Industrial Coatings are the perfect solution to reduce energy use in food and beverage processing facilities. The coatings are easily spray applied to equipment either during operation (no downtime) or during scheduled maintenance.

Recommended Products



Syneffex™ Energy Protect up to 256F (125C)

Clear acrylic
Insulation
Mold Resistance
Corrosion Resistance
1-part system
Apply w/ sprayer or brush



Syneffex™ High Heat up to 400F (204C)

Clear acrylic Insulation Corrosion Resistance 1-part system Apply w/ sprayer or brush Direct-to-metal

CASE STUDY - DAIRY/FOOD PROCESSING

Temp Reduction: To safe touch

Customer: UltraSpin had a dairy customer in Australia that needed to reduce the exterior surface temperature of their butter melting tanks to safe touch range.

Application: Syneffex™ Energy Protect was applied to the exterior of the tanks.

With a typical three coat coverage, exterior tank temperature was reduced to worker safe touch range and the insulation also improved consistency of the melting process.

PAPER MANUFACTURING EQUIPMENT

1) OBJECTIVES

HIGH HEAT INSULATION
REDUCTION OF ENERGY USE

Water-based acrylic and epoxy systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Reduction in Energy Consumption
- √ Easy Application
- √ Long-Term Performance
- √ Reduce Surface Temperature to Safe Touch
- √ Chemical Resistant
- √ Clear Allows easy inspection for leaks

3) NOTES

Syneffex™ coatings provide excellent insulation for all types of paper manufacturing equipment, such as paper dryers, processing tanks, steam system components, cold process tanks, lime kiln, Cl02 unit, hot water tanks and lines, and more. The coatings are durable and stand up well to harsh environments without degrading.

Use Syneffex™ High Heat Coating to reduce dangerously hot surfaces to a worker safe level without the bulk of conventional insulation



CASE STUDY - PAPER MANUFACTURING Energy Efficiency & Reduction of Heat Damage

Customer: Seshasayee Paper & Boards insulated several pieces of equipment to introduce sustainable nanotechnology and its efficiency into their manufacturing plant. They also presented their findings at Papertech 2011.

Application: Syneffex[™] Translucent PT at a 300 micron (12 mil) dry film thickness (six coat coverage).

Dryer end covers were coated and showed an average temperature reduction after 30 days (prior to the full 45-60 day cure time being completed) over one dryer 15.7% reduction in temperature, and on another dryer of 18.7%. The scanner sensor unit was insulated to increase sensor and unit longevity.

With the typical three coat coverage (approx. thickness of 7 mils



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant

NUCLEAR FACILITIES



CASE STUDY - US NUCLEAR FACILITY Insulation of equipment for energy savings

Customer: Midwest Nuclear Facility needed to insulate surfaces with a low VOC, environmentally friendly coating.

Application: Syneffex™ Translucent Energy Protect coating was used for insulation of concrete surfaces.

OTHER NUCLEAR APPLICATIONS include insulation of steam & metal components to increase energy output, and use in nuclear base decommissioning for clear, safe encapsulation of lead contaminated surfaces.

1) OBJECTIVES

REDUCTION OF ENERGY USE INCREASED EFFICIENCY ABATEMENT - DECOMMISSIONED FACILITIES

Water-based acrylic coatings that insulate, reduce energy consumption, reduce surface temperature and provide safe encapsulation of lead.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Resistance
- √ Resistance to Mold and Moisture
- √ Easy Application
- √ Long-Term Performance
- √ Reduce Energy Consumption
- √ Reduce Surface Temperature to Safe Touch
- √ Fits Any Shape or Size of Equipment
- √ Impervious to Moisture, Dust, Chemicals
- √ Lead Abatement

3) NOTES

Syneffex™ Industrial Coatings provide multiple solutions for efficiency of nuclear facilities. Additionally they are non-hazardous, non-toxic, non-flammable, low VOC, and environmentally friendly.

Recommended Products



Syneffex™ Energy Protect up to 256F (125C)

Clear acrylic
Insulation
Mold Resistance
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
NSF Registered



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ LeadX
Clear lead encapsulation coating

Clear acrylic Lead abatement Mold resistant 1-part system Apply w/ sprayer or brush Environmentally friendly

MILITARY/DEFENSE APPLICATIONS

1) OBJECTIVES

HIGH HEAT INSULATION
REDUCTION OF ENERGY USE
WEATHERING RESISTANCE
LEAD ABATEMENT

Water-based acrylic and epoxy systems insulate, reduce energy consumption, reduce surface temperature and protect from corrosion.

Syneffex[™] coatings have been used by a number of defense organizations for insulation and surface protection. Below is an example of some of these projects:

- Pearl Harbor Naval Base, Lead encapsulation
- Norfolk Naval Shipyard, Lead encapsulation
- U.S. Army Corps of Engineers, Arkansas, Lead encapsulation
- Portsmouth Naval Shipyard, building insulation and protection
- U.S. Army Corps of Engineers, lowa, building insulation
- U.S. Army Corps of Engineers,
 Mississippi, steam pipe insulation
- Naval Business Center, Pennsylvania, pipe insulation
- U.S. Army Fort Wainwright, pipe & steam pipe insulation
- National Naval Aviation Museum, Lead encapsulation

Coatings that stand up to the most rugged environments help our defense infrastructure stay strong, efficient, and protected.



CASE STUDY - U.S. NAVY
Insulation and Corrosion Control for Metal Dock Buildings

Customer: Portsmouth Naval Shipyard needed an insulation for metal dock buildings that would stand up to the marine environment and also provide protection against corrosion.

Application: Syneffex™ Translucent PT insulation and corrosion prevention coating was chosen to insulate and protect their metal buildings from corrosion. This new innovation in insulation provided thermal insulation that resists moisture and maintains performance over time due to the ability to stand up to harsh marine environments while also protection against corrosion and weathering.

Recommended Products



Syneffex™ LeadX
Clear lead encapsulation

Clear acrylic
Lead abatement
Mold resistant
1-part system
Apply w/ sprayer or brush
Environmentally friendly



Syneffex[™] PT up to 256F (125C)

Clear acrylic Insulation Corrosion Resistance 1-part system Apply w/ sprayer or brush Direct-to-metal

OIL AND GAS - OFFSHORE



CASE STUDY - SINOPEC

Syneffex™ thin film technology at 0.12cm provides a better insulation/corrosion solution than 8cm rock wool.

Sinopec, the Chinese oil & gas company that is the world's fifth largest company by revenue, completed a successful winter study from October 2012 to March 2013 with Syneffex™ High Heat coating for insulation and corrosion control.

Sinopec was looking for a better solution than the rock wool insulation they were using and one that would prevent corrosion, which was being caused by the rock wool.

A 12-coat application of Syneffex[™] was used over an offshore fuel oil storage tank. The tank had to be kept

between 68C and 72C. The final analysis showed that Syneffex™ was effective and within 3 degrees Celsius of the 8cm rock wool insulation, plus it solved the corrosion issue and provided a cost effective solution that would stand up to the harsh ocean environment without degrading.

Syneffex[™] provided Sinopec with a better solution for insulation and corrosion control of their fuel storage tanks, which lasts much longer than other insulation options, which greatly reduces the maintenance and replacement costs over time.

1) OBJECTIVES

INCREASE ENERGY EFFICIENCY
PREVENT CORROSION
PREVENT CUI

The combination of thin film thermal barrier technology with world class corrosion resistance, means assets, even in harsh environments, last longer while saving energy.

2) BENEFITS

- √ Thermal Insulation
- √ Corrosion Prevention
- √ Elimination of Corrosion Under Insulation (CUI)
- √ Long-Term Performance
- √ Durability in Marine Environments
- √ Lower Energy Costs
- √ Lower Maintenance and Replacement Costs

Recommended Products



Syneffex™ High Heat up to 400F (204C)

Clear acrylic
Insulation
Corrosion Resistance
1-part system
Apply w/ sprayer or brush
Direct-to-metal



Syneffex™ EPX-H2O up to 400F (204C)

Epoxy Insulation Charcoal grey or white Chemical resistance 2-part system Apply w/ texture sprayer Abrasion resistant



ROOFS

1) OBJECTIVES

REDUCE HEATING & COOLING COSTS REDUCE CLEANING COSTS

Water-based acrylic insulation coating, reduce energy consumption, and provide resistance to mold growth and weathering.

2) BENEFITS

- √ Thermal Insulation
- √ Mold & Fungi Resistance
- √ Easy Application
- √ Improved Thermal Envelope of Building
- √ Compatible with Multiple Sloped Roof Materials
- √ Long-Term Performance
- √ Reduction in Energy Consumption
- √ Moisture Repellent
- √ Breathable (does not act as vapor barrier)

Keep the beauty of your roof intact while insulating with a "CLEAR Cool Roof" option.

CASE STUDY - DATA CENTER ROOF

Increased energy efficiency, stopped server overheating

Customer: Mexico's Social Security Administration (IMSS). The data center in Monterrey, Mexico that houses patient medical records had an issue with the servers shutting down due to excess room temperature.

Application: Syneffex[™] was applied to the data center roof at a 3-coat coverage.

The application of the coating to the roof effectively reduced interior temperature by an average of 27%, to a safe level for the systems, and stopped equipment shut down.

3) NOTES

Syneffex™ Crystal is a patented, one-of-a-kind, clear thermal insulation coating for concrete or clay tile roofs, slate roofs and asphalt or wood shingle sloped roofs that lowers your energy bill and keeps your roof looking beautiful and new.

Because the technology we use is not based upon simply reflecting the sun's rays, but rather on reducing the direct conduction of heat through the roof, Syneffex™ Crystal works equally well in summer, winter - all seasons - and during all times of day or night.

Additionally, the need for power washing is reduced due to the "self-cleaning" nature of the coating, and its resistance to mold & fungi growth.

Recommended Products



Syneffex™ Crystal up to 256F (125C)

Clear acrylic
Roof Insulation
Mold Resistance
1-part system
Apply w/ sprayer, brush or roller

BUILDING ENVELOPE: WALLS/CEILINGS



CASE STUDY - LUXURY APARTMENT COMPLEX Solution: Reduce Energy Use, Protect from Mold Growth

Customer: A Housing Association consisting of several luxury apartment buildings located where the altitude is the highest in Istanbul, Turkey. The buildings are facing winds from all sides, all year round. Because they are open to high winds, the energy consumption is very high.

Application: Syneffex[™] Energy Protect was applied to the interior walls of the building to reduce energy consumption and provide resistance to mold growth.

1) OBJECTIVES

INCREASE ENERGY EFFICIENCY RESISTANCE TO MOLD GROWTH

Water-based acrylic systems insulate, reduce energy consumption, prevent growth of mold, and provide UV resistance.

2) BENEFITS

- √ Thermal Insulation
- √ Mold Resistance
- √ Reduction in Energy Consumption
- √ Easy Application
- √ Long-Term Performance
- √ Increase Energy Efficiency of Building
- √ Low VOC

3) NOTES

Syneffex™ coatings are an easy-to-use and cost effective way to increase energy efficiency of any age or type of building. Application can be done on interior or exterior and the coatings are versatile enough to use over stucco, brick, drywall, concrete, stone, metal and many other surfaces.

Roll-on Energy Efficiency, Affordable & Effective

Recommended Products



Syneffex™ Energy protect walls/ceilings

Clear acrylic Insulation Mold Resistance 1-part system Apply w/ sprayer, brush or roller



Syneffex™ PT metal buildings

Clear acrylic Insulation Corrosion Resistance 1-part system Apply w/ sprayer or brush Direct-to-metal

CASE STUDY - INTERNATIONAL AIRPORT

Solution: Green, environmentally friendly building material for energy efficiency

Customer: H.H. Robertson chose Syneffex™ PT as an integral part of their construction of the Suvarnabhumi International Airport in Bangkok, Thailand.

Application: Syneffex™ PT was applied to the aluminum panels making up the airlink bridges throughout the 11,530m2 facility to provide a sustainable, low VOC product to improve energy efficiency and increase lifespan of the panels.

SKYLIGHTS

1) OBJECTIVES

INCREASE ENERGY EFFICIENCY REDUCE GLARE

MAINTAIN DAYLIGHT

Water-based acrylic insulation coating, allows through visible light, reduces glare, reduces UV fading.

2) BENEFITS

- √ Thermal Insulation
- √ Easy Application
- √ Long-Term Performance
- √ Reduction in Energy Consumption
- √ Frosts Windows for Security
- √ Low VOC
- √ Reduces Glare

"Art conservation researchers over the past 40 years have studied the sensitivity of artworks to light. In Weymouth's designs, a crucial element is using materials and coatings that block out both ultraviolet rays and heat."

-2008 Article in Florida Trend Magazine, referring to the HOK project with Syneffex™ at the Frost Art Museum





CASE STUDY - SKYLIGHTS

Reduced heat transfer, protected artwork from UV rays

Customer: Frost Art Museum, Florida International University, Miami, Florida hired architectural firm HOK to solve issues with their skylights which resulted in poor energy efficiency, and also fading of artwork due to UV rays.

Application: Syneffex™ coating was used to coat the skylights and solve both issues. It reduced heat transfer through glass, while providing a way to allow in natural light, which was an important museum design element, while protecting the artwork from harmful UV rays.

Recommended Products



LEAD ENCAPSULATION



CASE STUDY - US NAVY

Lead encapsulation to make buildings safe

Customer: The U.S. Navy needed an effective way to remediate lead contaminated surfaces in buildings located at their Pearl Harbor Naval Base and at the Norfolk Naval Shipyard.

Application: Syneffex[™] LeadX clear lead encapsulation coating was applied at a standard 2-coat coverage.

This clear lead encapsulation coating was chosen to encapsulate lead contaminated surfaces and offered an easy and effective lead abatement choice that was also green, low VOC, and environmentally friendly.

Recommended Products



Syneffex™ LeadX
Clear lead encapsulation coating

Clear acrylic Lead abatement Mold resistant 1-part system Apply w/ sprayer or brush Environmentally friendly

1) OBJECTIVES

LEAD ABATEMENT

ENVIRONMENTAL REMEDIATION

Water-based acrylic lead encapsulation system that encases lead contaminated surfaces to make them safe for inhabitants.

2) BENEFITS

- √ Lead Abatement
- √ Mold Resistant
- √ Clear, with matte finish
- √ Easy Application
- √ Long-Term Performance
- √ Environmentally Friendly

3) NOTES

Lead-based paint and lead dust in brick and concrete is a serious health risk in older homes and buildings. Syneffex™ LeadX can provide a safe and cost efficient alternative to expensive remediation and removal of lead-based paints. If the paint is adhering well to the surface, then you can encapsulate the lead-based paint with Syneffex™ LeadX - and provide a clear layer of protection.

CASE STUDY - AMERICAN RED CROSS

Remediation of lead contaminated brick.

Customer: In 2006, the Central Louisiana Chapter of the American Red Cross received a gift designated to support the construction of an American Red Cross chapter headquarters in Central Louisiana. After finding a suitable property to rehabilitate, the Environmental Site Assessment revealed concerns about lead in paint which needed to be addressed.

Application: Syneffex™ LeadX was chosen to encapsulate lead paint and offered an environmentally friendly way to remediate lead-based paint that was an affordable option that allowed effective remediation.



Syneffex[™] technology was chosen by construction contractor H.H. Robertson as a sustainable, energy saving solution for the Suvarnabhumi International Airport in Bangkok, Thailand. The new Terminal Complex, in Samut Prakarn Province, has a total floor area of 500,000m2, making it the largest airport in the world.

Syneffex™ PT was applied to the aluminum panels used in the construction of the airway bridges to provide insulation, corrosion protection and improved air quality versus conventional insulation.



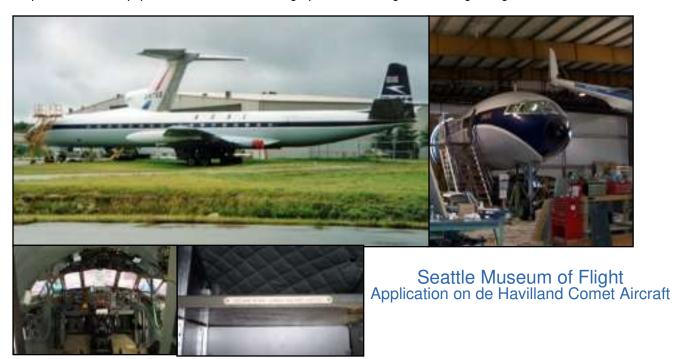
Syneffex™ technology was chosen by Coats plc, the world market leader in industrial yarns and threads and consumer crafts after energy efficiency trials at two of their European facilities.

The project included insulation of dye machines throughout their plants globally with Syneffex™ High Heat and Syneffex™ EPX-H2O insulation coatings to reduce energy consumption and improve worker safety. **Estimated Energy Savings: Over 10% with an estimated reduction of carbon emissions of 2%; Projected Payback:** less than 1 year.



Syneffex™ technology was chosen by Galp Energia for insulation and corrosion control of equipment at their Matosinhos Refinery in Portugal.

Syneffex™ Translucent PT was used on an oil pipeline in 2010, and on large fuel oil storage tanks in 2011 to provide thermal insulation and corrosion resistance in a durable thin film, coat coating that allows for visual inspection of the equipment, while also standing up to weathering without degrading.



Syneffex[™] technology was chosen by the Seattle Museum of Flight's Restoration Team for an important aircraft restoration project for the "First Jet Airliner" - the de Havilland comet Mk4C.

Syneffex™ PT was applied to the interior of the aircraft's forward passenger compartment skin to protect the aircraft from condensation and corrosion. Syneffex™ provides invisible insulation and corrosion prevention without detracting from the historic look of the aircraft.



Syneffex[™] technology was chosen by a large Middle East Petrochemical Facility to stop product loss by vaporization of methanol and to provide effective insulation in a high humidity climate.

Syneffex™ High Heat was applied to the facility's methanol tanks, and over coated with a blue paint. Syneffex™ provides a thin film insulation that performs in high humidity environments and offers UV and corrosion resistance.



Syneffex™ technology was chosen by Southern Environmental Services for the restoration of a commercial building in Atlanta, Georgia.

Syneffex™ LeadX - lead encapsulation coating was applied to all building interior surfaces, including brick, wood and painted walls to encapsulate lead and lead-based paint for safety, to insulate and improve air quality as compared to conventional insulation.



Syneffex™ technology was chosen to increase energy efficiency and reduce costs for the residents of a luxury high rise apartment complex in Istanbul, Turkey.

Syneffex™ Energy Protect was applied to the the interior walls of the units to increase energy efficiency and provide mold and moisture resistance.



Bleck and Bleck Architects were tasked with using LEED guidelines to increase the energy efficiency of a historic 1800's building, while also keeping the unique brick look of the building intact.

Syneffex™ building insulation coating was applied to masonry walls to improve thermal resistance, reduce energy consumption, and provide UV and moisture resistance, while allowing the visual appeal of the building to remain.



Syneffex™ technology was chosen by by a large Middle East Chemical Production Facility to insulate and protect brine super purification columns.

Syneffex[™] High Heat (3 coats) and white finish coat (1 coat) were applied to the exterior of the large columns. Syneffex[™] provided protection from corrosion while reducing energy use by insulating the equipment.



Caribbean snack food manufacturer, Holiday Snacks needed to reduce hot surface temperatures for worker safety and also wanted to find an insulation that would be safe to use around food manufacturing equipment.

Nansulate® Translucent High Heat was applied at a thickness of 6 coats (approx. 300 microns) to the exterior of a Casa oven, a vent duct and a peanut fryer to reduce surface temperature and insulate the equipment to reduce energy costs. Syneffex™ reduced oven, duct and fryer surface temperatures by 27F to 48.6F.

Available Sizes:	1-gallon, 5-gallon, 55 gallon drum; larger sizes available	
Color:	Clear (under 200F)/Opaque (over 200F), matte finish - smooth surface	
Environmental:	Low VOC - water based	
Warranty Period:	5 years	
Shelf Life:	2 years	
Storage Temperatures:	4°C-30°C (39°F-85°F)	
Coverage (1 coat):	450 s.f. per gallon	
Coverage (10 coats):	45 s.f. per gallon	
Certification:	GM9540P Accelerated Corrosion Test - passed 24 cycles,; Mold Testing: ASTM G21 & 5590 - passed	
Product Attributes:	Thermal insulation, corrosion prevention, mold resistance, surfaces up to 204C (400F).	
Material Applied to:	Steel, carbon steel, aluminum, galvanized aluminum, copper, other	
Applications		

Applications

Insulation and corrosion control. Industrial applications up to 204C (400F), used for heat exchangers, LNG burners, steam boilers, steam pipes, other hot surfaces requiring insulation and corrosion protection. Not for pipe interior or underwater use - product cannot be in a submerged environment. Can be used around steam and high humidity environments. Interior or exterior use.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, etc.. Apply directly to the surface. Each coat should be applied at 100 microns (4 mils) in thickness with 1-2 hours dry time (non-tacky) between coats. Three coats is the recommended minimum coverage, more coats may be used, up to 24. Application temperature range: 4°C to 177°C (40°F-350°F). Refer to application guide.

Suggested Application Equipment

www.Syneffex.com - Toll Free: 1-800-858-3176 or +1 303-228-3701

Paint sprayer (airless at low pressure or H.V.L.P.), brush or roller

Available Sizes:	1-gallon, 5-gallon, 55 gallon drum; larger sizes available
Color:	Clear, matte finish - smooth surface
Environmental:	Low VOC - water based
Warranty Period:	5 years
Shelf Life:	2 years
Storage Temperatures:	4°C-30°C (39°F-85°F)
Coverage (1 coat):	450 s.f. per gallon
Coverage (6 coats):	75 s.f. per gallon
Certification:	GM9540P Accelerated Corrosion Test - passed 24 cycles,; Mold Testing: ASTM G21 & 5590 - passed
Product Attributes:	Thermal insulation, corrosion prevention, mold resistance, surfaces up to 125C (256F).
Material Applied to:	Steel, carbon steel, aluminum, galvanized aluminum, copper, other metal substrates

Applications

Insulation and corrosion control. Industrial applications up to 125C (256F), used for pipes, pipelines, water pipes, other metal surfaces requiring insulation and corrosion protection. Not for pipe interior or underwater use - product cannot be in a submerged environment. Can be used around steam and high humidity environments. Interior or exterior use.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, etc.. Apply directly to the surface. Each coat should be applied at 100 microns (4 mils) in thickness with 1-2 hours dry time (non-tacky) between coats. Three coats is the recommended minimum coverage, more coats may be used, up to 24. Application temperature range: 4°C to 125°C (40°F-256°F). Refer to application guide.

Suggested Application Equipment

Paint sprayer (airless at low pressure or H.V.L.P.), brush or roller

Available Sizes:	1-gallon kit, 2-gallon kit, 5- gallon kit, (each kit contains a part A & part B)
Color:	Charcoal Grey or White (tintable), pebbled surface
Environmental:	Low VOC - water based
Warranty Period:	10 years
Shelf Life:	2 years
Storage Temperatures:	4°C-30°C (39°F-85°F)
Coverage @ 2 coats:	94 s.f. per gallon
Pot Life:	18-24 hours
Product Attributes:	Thermal insulation, corrosion prevention, chemical resistance, fast cure time, abrasion resistance
Material Applied to:	Metal, wood, drywall, plastic and cement substrates.

Suggested Application Equipment

SYNEFFEX™ PRODUCT LISTING

Texture APEAY® SHIELD™ EPX-H2O

SYNEFFEX™ HIGH HEAT

SYNEFFEX™ PT

Epoxy Insulation , Corrosion Prevention & Chemical Resistant

High Temp Insulation & Corrosion Prevention

Clear Coat Insulation & Corrosion Prevention













Applications

Heavy duty insulation, corrosion, chemical and abrasion resistant epoxy. Industrial applications up to 204C (400F). Used for pipelines, pipes, heat exchangers, LNG burners, steam boilers, steam pipes and in environments where there is chance of harsh chemical contact. Not for use on pipe interior or underwater. Our #1 industrial insulation coating with best performance and shortest cure time. Interior or exterior use.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, etc.. No primer is needed with the newly enhanced formulation. Each coat should be applied at 254 microns (10 mils) in thickness. Typical application is 2-4 coats. Dry time is 1 to 24 hours, depending upon surface and ambient temperatures. Application temperature range: 4°C to 177°C (40°F-350°F). Refer to application guide.

Available Sizes:	1-gallon, 5-gallon, 55 gallon drum; larger sizes available
Color:	Clear, matte finish - smooth surface
Environmental:	Low VOC (100 g/liter) - water based
Warranty Period:	5 years
Shelf Life:	2 years
Storage Temperatures:	4°C-30°C (39°F-85°F)
Coverage (1 coat):	450 s.f. per gallon
Coverage (3 coats):	150 s.f. per gallon
Certification:	Mold Testing: ASTM G21 & 5590 - passed; Thermal: ISO 8990:1999, 34.8% reduction in heat transfer
Product Attributes:	Thermal insulation, mold resistance, UV & moisture resistance
Material Applied to:	Drywall, pre-painted walls, ceilings, wood, plastic, glass, cement, glass, other building surfaces.
Ani	plications

Applications

Insulation and mold resistance. Commercial building applications, used for drywall, pre-painted walls, wood, plastic, glass, cement, brick, and other non-metal surfaces requiring insulation and mold resistance. Not for underwater use - product cannot be in a submerged environment. Can be used around steam and high humidity environments. UV, weather resistant. Interior or exterior use.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, etc.. Apply directly to the surface. Each coat should be applied at 100 microns (4 mils) in thickness with 1-2 hours dry time (non-tacky) between coats. Three coats is the recommended minimum coverage, more coats may be used if desired. Application temperature range: 4°C to 93°C (40°F-200°F). Refer to application guide.

Suggested Application Equipment

IdA	Applications		
Material Applied to:	Sloped roofs: clay, cement or slate tile; asphalt or wood shingle. Flat roofs without standing water issues.		
Product Attributes:	Thermal insulation, mold resistance, UV & moisture resistance		
Certification:	Mold Testing: ASTM G21 & 5590 - passed; Thermal: ISO 8990:1999, 34.8% reduction in heat transfer		
Coverage (2 coats):	225 s.f. per gallon		
Coverage (1 coat):	450 s.f. per gallon		
Storage Temperatures:	4°C-30°C (39°F-85°F)		
Shelf Life:	2 years		
Warranty Period:	10 years		
Environmental:	Low VOC (100 g/liter) - water based		
Color:	Clear, matte - smooth surface		
Available Sizes:	1-gallon, 5-gallon, 55 gallon drum; larger sizes available		

Applications

Insulation and protection of sloped roofs. Commercial and residential applications up to 125C (256F), used for clay, cement, slate tiles or asphalt or wood shingle roofs. Provides resistance to UV and weathering. Not for flat roofs with possibility of standing water over extended period. Can be used around steam and high humidity environments. Exterior use. Please see application instructions for specifics on exterior application and conditions.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, etc.. Apply directly to the surface. Each coat should be applied at 127 microns (5 mils) in thickness with 1-2 hours dry time (non-tacky) between coats. Two coats is the recommended minimum coverage, more coats may be used if desired. Application temperature range: 4°C to 93°C (40°F-200°F). Refer to application guide.

Suggested Application Equipment

www.Syneffex.com - Toll Free: 1-800-858-3176 or +1 303-228-3701

Paint sprayer (airless at low pressure or H.V.L.P.), brush or roller

Available Sizes:	1-gallon, 5-gallon, 55 gallon
	drum; larger sizes available
Color:	Clear, matte finish - smooth surface
Environmental:	Low VOC (100 g/liter) - water based
Warranty Period:	20 years - interior
Shelf Life:	2 years
Storage Temperatures:	4°C-30°C (39°F-85°F)
Coverage (2 coats):	225 s.f. per gallon
Certification:	Mold Testing: ASTM G21 & 5590 - passed. Adhesion: ASTM D4541 - 2400-2450 psi
Product Attributes:	Lead encapsulation, mold resistance
Material Applied to:	Surfaces coated with lead- based paint that is adhering well to surface and not flaking or peeling, lead contaminated brick or concrete.
A ==	nlications

Applications

Coating for encapsulation of lead-based paint. Residential, commercial and industrial applications up to 125C (256F). Applied to areas with lead-based paint to encapsulate or brick or concrete surfaces with lead contamination. Not for pipe interior or underwater use - product cannot be in a submerged environment. Interior use only for 20-year warranty. Can be used for exterior application, with 5 year warranty.

Application Method

Surface must be clean and dry and free of grease, dirt solvents, flaking paint, etc.. Apply directly to the surface. Each coat should be applied at 100 microns (4 mils) in thickness with 1-2 hours dry time (nontacky) between coats. Two coats is the recommended minimum coverage, more coats may be used if desired. Application temperature range: 4°C to 93°C (40°F-200°F). Refer to application guide.

Suggested Application Equipment

SYNEFFEX™ PRODUCT LISTING

SYNEFFEX™ ENERGY PROTECT

Clear Coat Building Insulation & Mold Resistance



Paint sprayer vair less at low pressure or H.V.L.P.), brush or roller Clear Coat Lead Encapsulation & Mold Prevention













SYNEFFEX™ PRODUCT LISTING

TYPICAL APPLICATION THICKNESSES

Please review application handbooks for the wet film to dry film coverage and reduction information. All coverage rates given are based upon the applied wet film thickness.

Application recommendations can vary according to project, but typical recommended coverages are below.

Building Envelope (walls, ceilings): 3 coats

Roof (non-metal) 2 coats (at 5 mils each)

Lead Encapsulation: 2 coats

Corrosion or Mold Resistance Only: 2 coats

Cold or Hot Water Pipes: 4-6 coats

Tanks below 200F: 6-8 coats

Steam Pipes, Boilers, Processing Tanks above 200F, Dye Machines, and similar heat process equipment:

(Choices the option with smooth finish, or with rough, chemical resistant finish)

Option #1 4-6 coats EPX-H2O

(pebbled finish) (fast cure: 1-2 days)

Option #2 10-15 coats High Heat

(smooth finish)

(longer cure: 60-90 days)

Suggested Measuring Tools:

Each applied coat should either be measured with a wet film thickness gauge as it is being applied, or with a dry film thickness gauge after it has cured, to ensure the appropriate film thickness per coat is properly attained.

Note About Cure Time:

Syneffex™ products are water-based and need to fully cure in order to reach their full insulating ability. Full cure time for all coatings, except the EPX-H2O, for 3 coats is approximately 30 days, for 10 coats, is approximately 90 days. Heat and air movement will shorten cure times. EPX-H2O, 2-part epoxy, has the fastest cure time, it is just 1-2 days or less if applying to a hot surface.

FOR DETAILS, DATA SHEETS AND MORE ON ALL SYNEFFEX™ PRODUCTS VISIT:

WWW.SYNEFFEX.COM

Toll Free: 800-767-3998 International: 1-239-254-0346

www.syneffex.com



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