Synavax™ Coatings for Sustainable Buildings

ENERGY EFFICIENCY IS EVERYTHING IN THIS BUSINESS

www.synavax.com

Thermal Insulation
Thin Film Coating
UV Resistance
Clear, Matte Finish
Mold Resistance
Moisture Resistance

Get Your Sustainability Accelerated™ Today!
We have helped companies around the globe for over a decade.
Award Winning, Mold Resistant, Energy Saving & Protective Coatings
New Solutions | For Sustainable Buildings

Have you been looking for ways to increase building energy efficiency without major construction or taking up valuable space? Need to insulate and protect but not change the appearance of the building?

Synavax™ is 21st century technology that makes it possible to insulate and protect surfaces with a clear, thin film coating. From insulating skylights, roofs, and walls to remediating lead, our award-winning coatings provide THE best solution. They’re clear, powerful, and applied as easily as a paint.

The Solution is Simple

A benefit of these translucent coatings is the increase to the energy efficiency of a building without reducing square footage or changing the look of the surface. Additional benefits are mold and moisture resistance, thus improving overall air quality.

Because Synavax™ coatings do not rely on thickness as a function of the insulating ability, compression does not reduce the effectiveness. They also provide a health benefit by not harboring moisture, dust, mold, or dirt, which reduce the effectiveness of older forms of insulation and decrease air quality. Our coatings also help keep building substrates dry, increasing a wall’s heat resistance and protecting surfaces from moisture damage.
Bold Plans | Bold Results

Insulating & protecting buildings with Synavax™ technology provides multiple benefits.

✓ Increases energy efficiency
✓ Clear, matte finish
✓ Resistant to mold/mildew growth
✓ Moisture repellent, yet breathable
✓ Can assist in earning LEED points
✓ Excellent adhesion to a variety of surfaces (wood, brick, drywall, concrete & more)
✓ Lead encapsulation that is clear with a smooth finish
✓ UV resistance
✓ Water-based, low VOC, non-toxic,

Sustainable Projects

Just a few of the organizations who have chosen award-winning Synavax™ coatings for their projects include: U.S. Navy, Suvarnabhumi International Airport (Bangkok), Frost Art Museum, Brunei Residential Palace, City of Rochester NY, Hyundai, American Red Cross, Mexico’s Social Security & Health Administration, Naval Aviation Museum, University of Wisconsin-Madison.
CrystalShield™

Powerful Products | Simple to Apply

Roofs: CrystalShield™ roof coating
Standard application is 2 coats (5 mils/127 microns each), or 3 coats for metal roof

Walls/Ceilings/Skylights/Ducts: Energy Protect™ coating
Standard application is 3 coats (4 mils/100 microns each)

Lead Abatement: LeadX™ lead encapsulation coating
Standard application is 2 coats (4 mils/100 microns each)
All products can be applied with a standard paint sprayer, brush, or roller.

Fast Payback

No matter where in the world you are, insulating is paramount to reducing building energy consumption and related GHG emissions. Our customers consistently report saving 20% to 40% on energy costs and payback in an average of 3 to 5 years. When you compare that to other energy efficiency technologies for buildings, it’s quite impressive and gives you one of the fastest paybacks you can find!
Synavax™ coatings have undergone extensive independent 3rd party testing to multiple U.S. and International testing protocols. The results have consistently been excellent. And results from different laboratories across the world from each other, consistently show similar results.

**ISO 8990:1999: Thermal Performance of Buildings**
3 coat coverage over 8cm cement wall with plaster
Heat conduction reduced by 34.80%
Thermal resistance increased by 28.98%

**ASTM E1530: Resistance to Thermal Transmission**
2 coat coverage over concrete tiles
Heat conduction reduced by 29.7%

**ASTM C518/ISO 8301 - Thermal Conductivity**
4 coat and 8 coat at 32F/0C temperature over glass
(yes, that’s at freezing!)
Decrease in thermal conductivity of
10% at 4-coats and 33% at 8-coats

**UKAS Guarded Hot Plate Thermal Insulation Test**
6 coat coverage over plasterboard
Thermal resistance increased by 40.0%
Independent Testing | Mold, Light Transmission, UV & More

Synavax™ coatings are hydrophobic, meaning they repel water, so there is not enough moisture on or in the coating film for mold and mildew to grow. The mold resistance comes naturally, without the use of any dangerous biocides.

**ASTM D590 & ASTM G21: Mold, Algae Resistance**
2 coat coverage over wooden test panels
Passed with zero to minimal growth

**Skylight Light Transmission | Spectrophotometer Testing**
3 coat coverage over glass
UV penetration reduced by 80%
Visible light transmission of 90-92%

**Water Vapor Transmission with RK303 Multicoater**
One coat: 35.830 WVTR (gm/m2/day)
Two coats: 25.515 WVTR (gm/m2/day)

Results show that the Synavax™ thermal insulation coatings for buildings formed a barrier that allows the transmission of water vapor.
Customers that insulate with Synavax™ coatings consistently report saving between 20% and 40% on building/home heating and cooling costs.

Chart shows a customer’s reduction of energy use in KWH after using Synavax™ Energy Protect™ on the building envelope. The average reduction was 46%.

Government data center internal temperature reduced by 27% after coating roof with CrystalShield™ coating.
CERTIFICATIONS
ASTM D5590 (Mold/Algae Resistance) Zero or minimal mold growth
ASTM G21 (Fungi Resistance) Zero or minimal mold growth
Resistance to Geocapsa spp. (Black Mold Resistance) No growth during 4-month accelerated testing
ASTM E1530 (Thermal Conductivity) 30% decrease in thermal conductivity
45% increase in thermal resistance
0.91
5 perms/inch @ 23 deg C.
Passed 10 year equivalent, with no discoloration or loss of adhesion
0% 5B, edges remain smooth, no flaking
2400-2450 psi

SPECIFICATIONS
Package Size
Coverage
Typical applied coat thickness
Typical touch dry time for 1 coat
Typical hard dry time
Shelf life
Color

5-gallon
150 S.F (14m2) per gallon at 3 coats
4 wet mils (100 microns) per coat
20 minutes to 1 hour
48-72 hours
2 years, from date of manufacture
Clear with matte finish
(Note: Over glass coating has a frosted look)

*Testing by Anter Laboratories, Inc., a ISO 9001:9002 certified laboratory, according to specification ASTM E1530 for measurement of thermal conductivity.