



# SIMIX CERAMIC CLEARCOAT REDUCES YOUR kWh USAGE BY 12-24%

**American Leadership Academy, Charter School, Gilbert, AZ reduces their A/C - Heat Pump kWh usage by 21.56%, avoiding and saving a total of \$24,062**



ALA Gilbert South Pre-K-6 Elementary School is located in Phoenix's East Valley area, Three of ALA Gilbert's Trane 4-ton units

**SIMIX improves the ability of any new or old unit to produce dramatically colder and fresher air**



## HVAC Energy Reduction System and Anti-Corrosion Coating

- Reduces your energy usage 12-24%\*
- Prevents salt and acid rain damage
- Destroys all foul musty odors
- Payback in 4-10 months

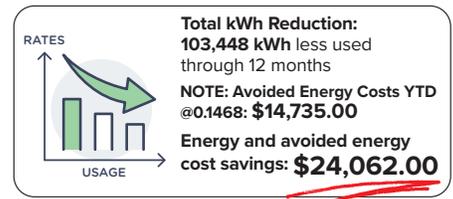
\*Reductions will vary based on geographical location and temperatures. The hotter the temperature the more the savings.

**A New Standard in Efficiency, Protection, and Air Quality**

**A/C - HEAT PUMPS - REFRIGERATION - ALL TYPES OF ROOFS  
ALL EXTERIOR & INTERIOR SURFACES**

# CASE STUDY – (updated monthly)

American Leadership Academy, Gilbert South Pre-K-6



## Arizona school reduces their A/C - Heat Pump kWh usage, saving energy, extending life of equipment and saving money

The HVAC system at the 59,300 square-foot ALA Gilbert South Pre-K-6 Elementary Charter School includes forty four (44) 9-year old Trane™ RTUs totaling 215.5 tons. Director of Fleet and System Readiness Russell McArthur and two assistants cleaned and treated all units using the **SIMIX Multi-Surface Ceramic Clearcoat**. Two initial coats of SIMIX were applied on December 20th to the condenser and evaporator coils, as well as the condenser fan blades. A third coat was applied on April 19th to reflect our updated program for Energy Optimization.

	2024 kWh's Uncoated	2025 kWh's Coated	Temp. diff. from 2024	Cumulative kWh Reduction from 2024		2024 Cost	2025 Cost	2026 Cost	Cumulative kWh Reduction from 2024	Cumulative Savings	
Jan	29,400 kWh	24,720 kWh	+3.9°	4,680 kWh less	15.92%	\$3,287.44	\$2,986.89	\$1,711.18	12,360 kWh less	42.04%	\$1,576.26
Feb	32,280 kWh	23,160 kWh	+1.4°	13,800 kWh less	28.25%	\$3,265.62	\$2,713.34	\$1,856.70	26,280 kWh less	43.12%	\$2,985.18
Mar	31,440 kWh	24,840 kWh	+0.6°	20,400 kWh less	20.98%	\$3,257.56	\$2,724.38				
Apr	30,480 kWh	29,040 kWh	+5.4°	21,840 kWh less	4.72%	\$3,094.84	\$3,219.77				
May	48,840 kWh	32,520 kWh	-2.4°	38,160 kWh less	33.4%	\$5,789.44	\$4,288.63				
June	45,840 kWh	32,160 kWh	+1°	51,840 kWh less	29.84%	\$5,818.94	\$4,378.27				
July	48,840 kWh	37,440 kWh	-3.4°	63,240 kWh less	23.34%	\$6,758.79	\$5,659.30				
Aug	60,600 kWh	50,280 kWh	+6°	73,980 kWh less	17.03%	\$8,392.09	\$7,923.75				
Sept	52,680 kWh	44,760 kWh	-1.1°	81,902 kWh less	15.03%	\$6,734.15	\$6,281.60				
Oct	41,760 kWh	30,960 kWh	-7.9°	92,280 kWh less	21.86%	\$5,669.14	\$4,200.76				
Nov	28,800 kWh	25,560 kWh	+6.6°	95,520 kWh less	21.18%	\$3,445.01	\$2,665.33				
Dec	29,760 kWh	21,840 kWh	-2.6°	103,448 kWh less	21.56%	\$3,041.40	\$2,185.03				
<b>Total</b>	<b>480,720 kWh</b>	<b>377,280 kWh</b>				<b>\$58,554.05</b>	<b>\$49,227.05</b>				
						<b>Avoided Energy Costs YTD @0.1468: \$14,735.00</b>	<b>Saved \$9,327.00</b>				
							<b>Total: \$24,062.00</b>				



Russell McArthur, Director of Fleet and System Readiness



Three of ALA Gilbert's Trane 4-ton units



ALA Gilbert South Pre-K-6 Elementary School is located in Phoenix's East Valley area

**Reduces your kWh consumption 12–24% • Destroys all foul musty odors • Prevents salt damage**  
**Units stay cleaner longer • Add years to your A/C units • Payback 4-10 months**

### SUBJECT: Evaluation of Coated Test Panels after Accelerated Exposure (full report is available)

The laboratory (KTA-Tator Inc.) testing consisted of exposing the test panels to a cyclic accelerated weathering environment for 1008 hours (6 weeks) as described in ASTM D5894-21, "Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal". Next a salt/acid test ASTM D1193-24 Type IV and adjusted to a pH of 5.0–5.4, was conducted at 35°C. This alternating exposure was repeated continuously for 168 hours (1 week) before moving the test panels back to the QUV cabinet for continued exposure. The results achieved the highest Blistering and Rusting grades available. We know of no other coating worldwide that has achieved these results. SIMIX will add years of life to any HVAC system, heat pump, refrigeration unit and pool heater equipment while at the same time significantly reducing your kWh consumption 15%–30%.



Testing by  
**KTA-Tator Inc.**  
 Project No. 66077381

The Key  
to Better  
Indoor **AIR**  
**QUALITY**



# SIMIX turns your evaporator coil into an **AIR PURIFIER**



## Reduce sick days

Cleaning and coating your evaporator coils destroys airborne germs, viruses, odors and generates clean fresh air.



We used AirAnswers™ to test SIMIX at a busy Chicago area diner.

**The Result:  
Air cleaner and fresher  
than outdoors!**

Air quality results were achieved without UV-C light source

Before cleaning and coating			After cleaning and coating with SIMIX		Result 3 weeks later	
Airborne contaminant		Result on 6/7/21		Result 1 week later		Result 3 weeks later
COVID		Not detected		Not detected		Not detected
Grass pollen	High	0.13		Not detected		Not detected
Cat allergen*	Medium	0.37	Low	0.11	Low	0.11
Dog allergen	Low	0.28	Low	0.20		Not detected
Mold allergen	Medium	5.89	Medium	4.71		Not detected

AirAnswers is the only commercially available air sampling device that collects all biological particles including viruses, bacteria, allergens and molds. Samples are analyzed in their ISO certified laboratory by RT-PCR using protocols designed and provided by the Center for Disease Control and Prevention.

\*It's not uncommon to see changes in allergens, especially with pet allergens, from run to run. Cat allergen is very tenacious and can stick to cat owner hair, skin, and clothing. Cat owners can easily transfer cat allergen everywhere they go. The higher cat allergen may be due to a cat owner coming into the establishment.

# SIMIX turns your condenser coil into an **AIR PURIFIER**

## What is SIMIX?

SIMIX Ceramic Clearcoat is a permanent, hygroscopic, non film-forming, super-hard liquid glass that will never yellow, chip, peel or crack. Just like in glass, the primary ingredient in SIMIX is silica (sand). That is mixed with potassium and lithium, which are very conductive. SIMIX conducts heat. It is not an insulator, like all other coil coating products on the market today.

## What is hygroscopic?

A continual process to attract and adsorb water molecules from the air to the surface. This process of evaporative cooling draws heat from the coils and also enhances the sustainable photocatalytic oxidation technology (SPOT-ON™) which breaks down greenhouse gases, airborne allergens, germs, viruses, mold, foul odors and generates clean fresh air.

## Why do you need SIMIX?

Air conditioners start losing efficiency the moment you install them. Tiny gaps are created by the expansion and contraction of the tubes and fins. Airborne corrosive particles and salt ions enter those microscopic gaps, corroding the unit and making it less efficient. SIMIX fills in those microscopic gaps, leaving behind a smoother surface that improves heat transfer.

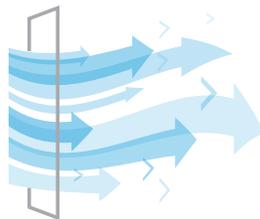
## What does SIMIX do?



SIMIX fills in microscopic gaps between fins and tubes created by salt, air pollution, and expansion and contraction.



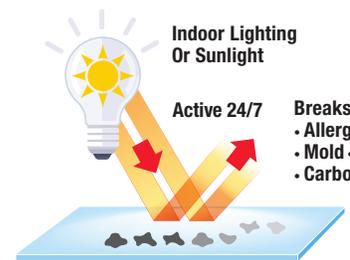
SIMIX is a conductor. It pulls heat away from the coils.



SIMIX SPOT-ON technology breaks surface tension allowing the fans to pull more air through the condenser and evaporator coils, destroying odors and generating clean, fresh air, indoors and outdoors.

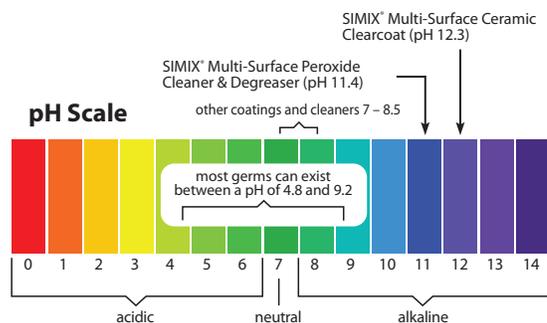
## RESULTS

- Breaks down greenhouse gases, airborne allergens, germs, viruses, mold, foul odors and generates clean fresh air
- Eliminates Dirty Sock Syndrome
- Prevents Legionella
- Prevents salt damage
- Cuts down on sick days
- Reduces PM time
- Significantly improves air flow
- Prevents airborne kitchen grease build-up
- Can be easily applied in the field
- Units stay cleaner longer
- Adds years to the life of unit
- Payback 4–10 months



## SIMIX SPOT-ON™

**Sustainable Photocatalytic Oxidation Technology (SPOT)** is what we call the titanium dioxide inside SIMIX Coating and Cleaner. Titanium dioxide is a safe, naturally occurring compound that reflects natural and artificial light. As that light is reflected, it converts water vapor in the air into a radical form of hydrogen peroxide, often referred to as the “detergent” of the atmosphere which breaks down greenhouse gases, airborne allergens, germs, viruses, mold, foul odors and generates clean fresh air.



**Mold, bacteria and pollen** – and the odors they create – live and grow on surfaces that have a pH level between 4.8 and 9.2. While most cleaning and coating products are pH neutral, SIMIX Multi-Surface Cleaner/Degreaser/Sanitizer (pH 11.4) and SIMIX Multi-Surface Ceramic Clearcoat (pH 12.3) create a permanent, safe, high pH that prevents the growth of mold, bacteria and viruses.

SMX-200-3

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