



Sustainability Simplified.™
very Simple.

PRODUCT DATA SHEET

Crystal Shield™ Clear Roof Coating

USES:

- ✓ Concrete & Clay Tiles (except for slurry)
- ✓ Wood Shingles
- ✓ Composite Tiles
- ✓ Metal Roofs

BENEFITS:

- ✓ Energy savings
- ✓ Mold resistant, without use of harsh chemicals
- ✓ Moisture repellent
- ✓ Corrosion resistance for metal roofs
- ✓ Cost effective, with long-term savings and short payback period
- ✓ Non-toxic, water-based, low VOC
- ✓ 10-year warranty
- ✓ Outstanding durability and weathering
- ✓ Easily applied by brush, roller or paint sprayer.
- ✓ Clear, with matte finish, allowing the beauty of your roof to shine through
- ✓ Provides protection from harmful UV rays
- ✓ Reduces need for regular power washing of roof
- ✓ Vapor permeable
- ✓ Easy cleanup

Award Winning Energy Saving and Asset Protection Coatings

BUILDINGS
MONEY-SAVING
PRODUCTS
WINNER



OVERVIEW:

Thermal insulation, mold/bacteria/algae resistant, UV and moisture resistant CLEAR roof protectant. Sustainable coating which reduces energy costs and carbon emissions. Use over sloped roofs: Wood Shingle, Metal Roofs, and asphalt shingle in good condition. FOR TILE ROOFS: Crystal Shield™ can be used over "color through" tiles (matte, porous texture) but not slurry or glazed tiles (shiny surface). Can be used over flat roofs with good drainage. Once cured, can perform at temperatures between -40F (-40C) up to 256F (125C).

Long-term performance and durability resulting in lower maintenance & cleaning costs and longer asset life. Prevents corrosion over metal roofs. Color: Translucent (Clear Coat) with matte finish. Note: Over light colored shingles, there is a very slight amber color that may be visible for the first two weeks, after which becomes completely clear; this is a natural part of the curing process.

ADVANTAGES:

THERMAL INSULATION: Excellent thermal insulation performance to maximize control of heat loss and heat gain, contributing to reduced energy costs in all seasons. Resistant to moisture infiltration and weathering for consistent thermal performance over time.

MOLD/BACTERIA RESISTANCE: Resistant to growth of mold and mildew. Coating has been tested to ASTM D5590 and ASTM G21 for mold resistance. Product has been tested for resistance to Gleocapsa Magma, the bacteria that causes black/dark green streaks on roofs.

WEATHERING RESISTANT: Protects roof surfaces from weathering by coating them in a protective moisture and weather resistant clear coat. Reduces damage from harmful UV rays by providing excellent UV resistance. Can increase lifespan roofing materials.

ENVIRONMENTALLY FRIENDLY: Non-toxic, non-flammable, water-based coating is low VOC, low odor, and environmentally friendly.

CORROSION RESISTANT FOR METAL: The hydrophobic nature of this product allows it to provide excellent corrosion resistance.

CONTACT/ORDERING: Phone:
800-858-3176 Order Online:
www.syneffex.com



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PRODUCT DATA:

Theoretical coverage rate
for One Gallon (3.79 Liters)
Coverage rate for typical application
for One Gallon (3.79 litres)
Typical applied coat thickness
Typical dry film thickness (DFT) of 1 coat
Typical touch dry time for 1 coat
Typical "before rain" dry time
Typical full cure time
Shelf life
VOC content
Viscosity
Salt Fog Corrosion Test (GM9540P)

Yields approximately 5 mils/127 microns wet film thickness (1 coat) over 450 square feet/4.5 squares (42 square meters) of surface area, depending on surface.
Yields approximately 10 mils/254 microns wet film thickness (2 coats) over 225 square feet/2.25 squares (21 square meters) of surface area, depending on surface.
5 wet mils (127 microns) per coat
1 mil (25.4 microns) DFT
20 minutes to 1 hour
30 minutes after last coat is dry
30 days, dependent upon environmental variables
2 years, from date of manufacture
49.13 g/L (actual)
300 to 700 (cps)
Completed 24 cycles, no rust present
The GM9540P Accelerated Corrosion Test is an advanced cyclic method originally developed by General Motors and now the corrosion test preferred by the US. Navy. Passing 8 cycles is considered the standard for an anticorrosion coating.
0% 5B, edges remain smooth, no flaking
2400-2450 psi
Class A
Passed 10 year equivalent with no discoloration or loss of adhesion
Zero or minimal growth
Zero growth
30% decrease in thermal conductivity
45% increase in thermal resistance
0.91
5 perms/inch @ 23 deg C.

Cross Hatch Adhesion - ASTM D-3359
Pull Apart Strength - ASTM D-4541
Flame Spread- ASTM E84
U/V Cabinet Aging Cabinet
Mold Resistance - ASTM D5590 & G21
Microbiology Testing - Gleocapsa Magma
Thermal conductivity testing on concrete
Thermal resistance testing on concrete
Emissivity as tested on concrete roof tile
Permeability

LIMITATIONS:

- Do not use as a final floor covering.
- Do not use over slurry or glazed roof tiles.
- Do not install where long-term submersion in liquid or continuous exposure to liquids is a possibility.
- Do not install over poor surfaces, such as those with flaking paint, grease or other contaminates.
- Do not allow application to be subject to rain or condensation for at least 30 minutes after last coat is touch dry.
- Do not allow application to be subject to freezing temperatures during first 30 days.
- Do not rely on visual measurement for coating thickness. Always use a wet film thickness (WFT) and/or dry film thickness (DFT) gauge in several areas to ensure proper application thickness. See Crystal Shield™ Application Handbook for further details.

NOTE ABOUT CURE TIME:

The product is dry to touch within a few minutes to an hour. The coating reaches full insulating ability AFTER a cure time of approximately 30 days, which is dependent upon environmental variables, humidity, and number of coats used. Test of thermal performance should be performed after full cure. Thermal benefits will typically begin to be seen approximately two weeks after application, and will continue to improve as the cure time completes. Final cure is complete when thermal performance has reached a steady state. Cure time won't interfere with normal operations.

All statements, technical information and recommendations contained in this document are based upon tests or experience that Syneffex™ believes are reliable. However, many factors beyond Syneffex's control can affect the use and performance of a Syneffex™ product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the Syneffex™ product to determine whether it is fit for a particular purpose and suitable for the user's method of application. No warranty, expressed or implied is given regarding the accuracy of this information. Except where prohibited by law, Syneffex™ will not be liable for any loss or damage arising from the Syneffex™ product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. For questions, contact Syneffex™ at 800-858-3175 or contact@syneffex.com. Products are Made in the USA.