



BREAKTHROUGH PRODUCTS BASED ON BETTER TECHNOLOGY.

NANSULATE ADVANCED INDUSTRIAL PRODUCTS

Application Information

For Nansulate product lines

Nansulate is designed for applications where a thin coating is required and the highest possible insulation, combined with superior corrosion protection is necessary.

Preferred application method is by brush, roller, or an airless sprayer at low pressure can be used. Care should be taken during mixing prior to application not to cause particle shear of the nanocomposite. Preferred method of mixing is using a mixing paddle at slow speed for approximately 1-2 minutes.

The minimum recommended application consists of 3 separate coats. One gallon yields approximately 3 coats over 150-175 square feet of surface area (3.79 litres yields approx. 3 coats over 13.94-16.26 square meters of surface area), depending on surface texture. It is recommended that each coat be allowed to dry for a minimum of one hour before applying an additional coat. Full cure time is approximately 30-60 days, depending on climate and humidity.

IMPORTANT: If you are experiencing cracking, peeling, or flaking this indicates your coat application is too thick. Each coat should be approx 3-5 wet mils in thickness. Most paint and hardware stores have inexpensive wet mil thickness gauges available.

For application to surfaces above 125° F (52° C) it is recommended that the first coats be applied as thinly as possible to prevent blistering. Each subsequent coat may be applied more thickly as the first coats will reduce surface temperature.

The temperature extremes for the substrate to which the material can be applied are 40° F to 212° F (4° C to 100° C).

The application should not go below freezing until cure time of at least 30 days is complete, or you may experience cracking and peeling.

Airless Spray Equipment Recommendations: Minimum pump-rated capacity of 1GPM, utilizing a 1/2 inch ID hose, Graco Silver Gun (or equal) with a 0.025 tip, 5-19 RAC Tip.

The temperature extremes for the substrate on which the material can maintain its integrity after fully cured are:

Nansulate Translucent PT and GP: a low of minus 40° F (minus 40° C) to a high of 257° F (125° C).

Nansulate Translucent High Heat: a low of minus 40° F (minus 40° C) to a high of 400° F (204° C).

Coverage Rate: One gallon (3.79 litres) will cover approximately 150-175 square feet (13.94-16.26 square meters) (depending on surface texture) with the minimum recommended 3 individual coats. Average surface temperature change when applied correctly is approximately 60° Fahrenheit for each 3 coats. We say "average" because the difference in the high/low temperature extremes is a factor in the surface temperature difference you will see. Manufacturer's Limited Warranty: is for 5 years when applied as instructed and used as a Direct to Metal Coating. See full copy of Warranty for details at www.industrial-nanotech.com.

For NanoPrime:

Coverage Rate: One gallon will cover approximately 450 Square Feet (46.45 Square Meters) (depending on surface texture) with the recommended single coat.

When will I see results?

The full cure time of Nansulate is approx. 30-60 days, depending upon the humidity of the environment. Most customers begin to see a difference in thermal resistance approx. 2 weeks after application, which improves as the material cures. After full cure, Nansulate reaches its full insulating ability.

Residential Tips

Attic Application Tips:

To help prevent heat transfer into your attic we recommend using our HomeProtect Clear Coat product. Suggested application would be to the ceiling and/or walls of the attic in order to create as thorough a barrier to heat transfer as possible.

Application can be done on wood, drywall, or most non-flexible surfaces. Application can be done with a paint sprayer (at low pressure), brush or roller. Allow at least 1 hour dry time between coats. Surfaces should be clean and free of dust, dirt, oil, etc.. prior to application to ensure good adhesion.

Nansulate is a low vapor barrier product, so it will not interfere with normal ventilation.

Wall Application Tips:

To help prevent heat transfer into and out of your home, one of the recommended applications is on your interior walls that abut the exterior. Application should be on as many walls to the exterior as possible in order to create as thorough a barrier to heat transfer as you can.

You can apply Nansulate HomeProtect over existing paint. Ensure prior to application that the paint is adhering well with no flaking or peeling because Nansulate will only adhere as well as the surface to which it is applied. Nansulate HomeProtect Clear Coat will provide an invisible protection and will only add a slight sheen to your surface.

When painting over Nansulate, remember that painting over will void the mold resistance guarantee in the satisfaction warranty. You can paint over Nansulate with a water-based paint after approx. 48 hours. If using an oil based paint, we recommend you wait at least 30 days before painting over, to give Nansulate a chance to fully cure prior.

Nansulate is a low vapor barrier product, so it will not interfere with normal ventilation.

Window Application Tips:

We do not recommend using Nansulate HomeProtect Clear Coat on windows that must maintain the same clarity. Nansulate will give windows a slightly cloudy look after application.

Nansulate HomeProtect Clear Coat is well suited for frosted windows, such as those in bathrooms or basements, where clarity is not a requirement. It has been shown to alleviate fogging of bathroom windows and provides resistance to heat transfer wherever applied.

When applying to glass, we suggest applying coats at the lower end of the recommended 3-5 wet mil coverage to promote the best adhesion.