

# NANSULATE® BEE PROTECT CLEAR

Thermal insulation, mold and moisture resistant coating. Exterior hive use.

## DESCRIPTION:

Clear, nanotechnology-based insulation and mold prevention coating used to insulate beehives. Color: Translucent (ClearCoat) with matte finish.

## APPLICATIONS:

- ✓ Wood Hives
- ✓ Plastic Hives

## BENEFITS:

- ✓ Insulates hives for more temperate environment.
- ✓ Easy cleanup with soap and water.
- ✓ Breathable - does not interfere with normal ventilation.
- ✓ NSF non-food compound registered (R-2)
- ✓ Can be painted over.
- ✓ Can be used over pre-painted surfaces.
- ✓ Resistant to mold and moisture.
- ✓ Provides protection from harmful UV rays.
- ✓ Protects hives from weathering.
- ✓ Easily applied by brush, roller or paint sprayer.
- ✓ Does not contain any potentially harmful anti-microbial additives or biocides.
- ✓ Non-hazardous, water-based.
- ✓ Exhibits outstanding durability with excellent adhesion to concrete, pvc, wood, brick, plastic, and many more substrates.
- ✓ Low VOC.

## ORDERING:

PH: 800-767-3998 or +1 239-254-0346  
Online: [www.beeprotect.org](http://www.beeprotect.org)



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## PRODUCT DATA:

Theoretical coverage rate	150 S.F. (13.94 Sq.M.) per 3 coats (recommended coverage)
Typical applied coat thickness	3-5 wet mils (76-127 microns) per coat
Typical thickness of 1 coat	2.5 dry mils (63.5 microns)
Typical thickness of 3 coats	7.5 dry mils (190.5 microns)
Typical touch dry time for 1 coat	1 hour
Typical full dry time for 3-coat coverage	72 hours
Typical full cure time for 3-coat coverage	30 days
Shelf life	2 years
VOC content	100 g/L
Viscosity	3500 to 4000 (cps)

## PRODUCT TEST DATA:

Cross Hatch Adhesion - ASTM D-3359	100% 5B
Pull Apart Strength - ASTM D-4541	2400-2450 psi
Flame Spread/Smoke Developed - ASTM E84	Class A
Mold Resistance Testing (ASTM D5590 & ASTM G21)	Zero or minimal growth
U/V Exposure	Passed 2000 hours
Accelerated Salt Fog Corrosion Test (GM9540P)	Passed 24 cycles, no rust
Permeability	5 perms/inch @ 23 deg C.
Thermal resistance (UNI EN ISO 8990:1999)	28.98% increase in thermal resistance
Thermal flow (watts) (UNI EN ISO 8990:1999)	34.8% decrease in thermal flow through a substrates, measured in watts
Spectrophotometer testing	Allows through 92% visible light (tested on pane glass)

## NSF REGISTRATION

Registered in Non-food compounds program, R-2 category by NSF International.

Registration No. 141658

Acceptable for use on structural surfaces or surfaces with the possibility of incidental food contact.

## LIMITATIONS:

Do not use as a final floor covering.

Do not install where long-term submersion in liquid or continuous exposure to moisture is a possibility.

Do not install over poor surfaces, such as those with flaking paint, grease or other contaminants.

Do not allow exterior application to be subject to rain or condensation for at least 72 hours.

Do not allow application to be subject to freezing temperatures during first 30 days.

## NOTE ABOUT CURE TIME:

The product reaches its full insulating ability after the cure time of approximately 30 days for a 3-coat coverage is completed. Any testing of thermal abilities should be done only after the cure time has completed. Thermal benefits will typically begin to be seen approximately 2 weeks after application, and will continue to improve as the cure time completes.

APPLICATION INSTRUCTIONS AND FURTHER INFORMATION AVAILABLE AT [WWW.BEEPROTECT.ORG](http://WWW.BEEPROTECT.ORG).

