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Eco-Smart, Inc.

(888)329-2705 info@eco-smart.com www.eco-smart.com

Radiant Barrier Paints

PRODUCT DESCRIPTION

Radiant Barrier Paints are low emissivity, non thickness dependent radiant barrier paints. They may be used in almost any application where infrared (heat) reflectivity or diffuse light reflectivity is required, ranging from attic heat barriers (Interior Radiation Control Coatings IRCCS) to heat shields in automotive applications, lighting fixture reflectors, reflective radiant barrier roof coatings and many other applications. Their high temperature tolerance, low emissivity, excellent adhesion, UV resistance, flexibility and weather-durability make them unique in the field of high technology industrial coatings.

PRODUCT SPECIFICATIONS

	Standard	Low VOC
Binder	Silicone	Silicone emulsion
Solvent	Xylene	DI Water
Temperature Range	-100 - +1000°F (538°C)	-100 - +1000°F (538°C) (when cured)
Storage Temperature	-50 - +80°F (-45 - +27°C)	+40 - +80°F (+5 - +27°C)
Viscosity	29 seconds #1 Zahn's	30 seconds #1 Zahn's
Coverage Rate	300 – 800 square feet/gallon depending on surface and application method.	
Mixing	Supplied ready for use. No thinning required or suggested. Shake well before using. Agitate during application, if possible.	
Clean Up	Xylene	50% Water/50% Isopropyl Alcohol

OPTICAL CHARACTERISTICS

Laboratory application on glass substrates has lowered emissivity from .86 to .22 and increased diffuse reflectivity from 7.3% to 85%. Products can be applied to a wide variety of substrates and normally will create a surface emissivity of .21 - .26 and a diffuse reflectivity of 81 – 85%, depending on the substrate used.

OPTICAL PROPERTIES on SELECTED SUBSTRATES

Substrate	Emissivity Before Application	Emissivity After Application	Diffuse Reflectivity Before Application	Diffuse Reflectivity After Application
Brick (red clay)	0.92	0.36	36.0 %	71.0 %
cement block	0.93	0.37	32.0 %	66.0 %
glass (soda lime)	0.86	0.22	7.3 %	85.0 %
galvanized steel (bright)	0.03	0.25	77.0 %	84.0 %
galvanized steel (dull paint lock)	0.57	0.26	15.0 %	82.0 %
paper (kraft)	0.80	0.24	48.0 %	81.0 %
plasterboard	0.90	0.21	55.0 %	85.0 %
plywood	0.72	0.22	46.0 %	81.0 %
poly-carbonate (clear)	0.84	0.22	8.6 %	84.0 %
polypropylene	0.90	0.23	8.1 %	84.0 %
steel, cold rolled, primed	0.87	0.25	22.0 %	83.0 %
steel, cold rolled, unprimed	0.10	0.23	57.0 %	84.0 %
steel, 316 stainless	0.19	0.23	59.0 %	84.0 %

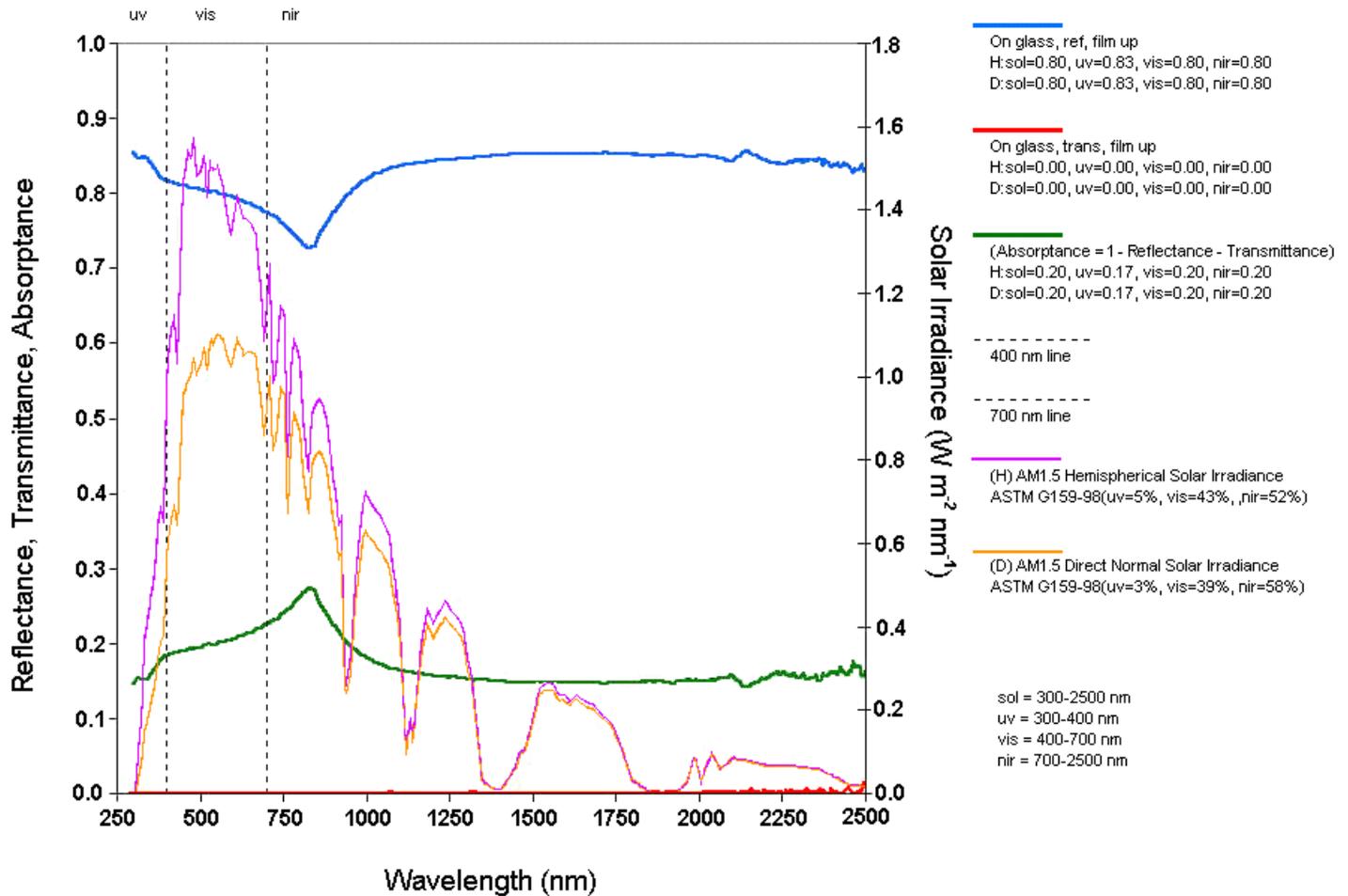


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Paint was spray applied to one side of a glass slide, then measurements were taken on both top surface and bottom surface. The blue line represents reflectance measurements of the painted surface. The green line represents the reflectance measurements taken on the underside, through the glass slide.



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SURFACE PREPARATION

Normally, adhesion is the only factor that will be affected by surface preparation. Optical properties will remain constant except on surfaces that are very porous such as brick and cement. To improve optical properties and extend coverage on porous surfaces, appropriate primers may be used to increase surface smoothness. On metallic substrates such as cold rolled or galvanized steel that may be subject to possible corrosion or oxidation, appropriate primers should be used. In all cases, the surface should be dry and free of oil and surface dust.

Surfaces that are already painted or primed should be tested for compatibility by applying a small test patch for possible reaction to the solvents used. Low VOC paint will normally not react since it is water borne.

Plastics may require surface treatment to increase adhesion and should be tested for compatibility. Low VOC paint is water borne and has not been found to react adversely with most plastic substrates.

Most building materials such as wood, plasterboard, paper faced insulation batts, fibrous ceiling tiles and painted metal roof decking require no surface preparation except that they be clean and dust free. Masonry surfaces should be allowed to cure for a minimum of one month prior to application.

INSTALLATION

Radiant Barrier paints are low viscosity coatings and may be installed using standard air or airless spray equipment. Spray nozzles should be appropriate for coatings that approximate the viscosity of water. Spray pressures should be kept as low as possible to lessen over-spray but also yield a uniform surface coat. Remote pressure pots should be equipped with air driven agitators. In all cases, the coating should be mixed during application to keep the pigments in suspension. Electrostatic application requires that the coatings be tested for the equipment being used. Additional solvents may be required for good electrostatic application.

Radiant Barrier paints may also be applied using low nap rollers or fine bristle brushes. Coverage rates will drop approximately 25% when applied in this manner. Brushes and rollers should be solvent resistant when using Standard Paint. Rollers are preferred since brushes generally leave streak marks in the surface.

CURING

Standard Radiant Barrier paints will skin dry within one minute after application. Drying to touch will generally occur within 15 minutes to 1 hour depending on ambient temperature and humidity.

Low VOC insulating paints will skin dry within 10 to 15 minutes after application. Full cure may take from several weeks to six months or more depending on ambient temperature and humidity conditions present, so avoid contact and abrasion during this time.

Curing can be accelerated by application of heat up to 500°F (260°C) for 4 to 20 minutes. Experimentation will determine the best curing procedures for your particular environment.

PACKAGING , SHIPPING and PRICING

Radiant Barrier Paint Available in 1 Gallon and 5 Gallon steel pails

Weights and Volumes: 1 Gallons (3.785 Liters) - 8.0 lbs (3.64 Kg)

5 Gallons (18.925 Liters) - 42.0 lbs (19.09 Kg)

*Flammable Liquid n.o.s., Class 3, UN1993, Packing Group II

Radiant Barrier Paint - Low VOC Available in 5 Gallon plastic pails only

Weights and Volumes: 5 Gallons (18.925 Liters) - 45.0 lbs (20.45 Kg)

*All packaging is certified for air freight and available for export. All freight charges FOB Ewing, NJ.

- MSDS information available upon request.
- Packaging charges are extra and not included in our pricing schedule.
- Contact factory for pricing via email, fax or phone.

Please contact Eco-\$mart with questions about Radiant Barrier Paint installation.

info@eco-smart.com

Learn More at: www.eco-smart.com