



EQUIVALENT R-VALUE REPORT

The following table shows the equivalent additional R-Values¹ for roofs coated with Nationwide Chemical Coating Mfrs., Inc. Roof Coatings. These values were determined by the Oak Ridge National Laboratory calculation, for the cities of Miami, Houston, San Antonio and Phoenix.

SNOWRITE™ - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.82	16.52	17.10	16.97
Houston	12.10	8.12	15.06	13.74
San Antonio	11.97	7.81	14.99	13.64
Phoenix	14.65	13.04	16.20	15.49

INSULKOTE™ - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.66	16.36	16.94	16.82
Houston	11.91	7.80	14.90	13.57
San Antonio	11.78	7.48	14.83	13.47
Phoenix	14.50	12.87	16.05	15.34

PERMAKOTE® - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.72	16.42	17.00	16.87
Houston	12.02	8.04	14.98	13.66
San Antonio	11.89	7.73	14.91	13.56
Phoenix	14.56	12.95	16.10	15.40

PERMAKOTE PLUS® - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.65	16.35	16.93	16.80
Houston	11.90	7.77	14.89	13.55
San Antonio	11.76	7.45	14.82	13.45
Phoenix	14.48	12.86	16.04	15.32

ULTRA KOTE™ - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.77	16.47	17.05	16.92
Houston	12.04	8.02	15.01	13.68
San Antonio	11.91	7.71	14.94	13.59
Phoenix	14.60	12.98	16.15	15.44

ULTRA KOTE XL™ - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.60	16.20	16.80	16.70
Houston	12.00	8.20	14.80	13.50
San Antonio	11.80	7.90	14.80	13.50
Phoenix	14.40	12.80	15.90	15.20

ULTRA SEAL™ - Additional R-Value for an Attic with R19				
City	COP 1.5 Eff. 0.8	COP 2.5 Eff. 0.8	COP 1.5 Eff. 2.0	COP 2.5 Eff. 2.0
Miami	16.65	16.35	16.92	16.80
Houston	11.94	7.90	14.90	13.58
San Antonio	11.80	7.59	14.83	13.48
Phoenix	14.49	12.87	16.04	15.33

All Information presented herein has been compiled from sources to be reliable, and is accurate and reliable to the best of our knowledge and beliefs, but is not guaranteed to be so. Revised: 06/04/05



NATIONWIDE CHEMICAL COATING MFRS., INC.
The PERmanent Coating Solution™

**Equivalent
R-Value
Report**

The figures for UltraKote® were provided by R&D Services, Inc.¹, using the reflective roofing estimator developed by Oak Ridge National Laboratory. The values for the additional products listed were calculated using the tools and data supplied by R&D Services, Inc. The results for added insulation required to achieve the same savings as a reflective roof coating depend on a number of factors including utility cost, conventional attic insulation and the efficiencies of the heating and cooling equipment. The values above were calculated for attics with an insulation value of R-19 with the heating and cooling systems fixed at two values representing both high and low efficiencies. The Solar Reflectance and Infrared Emittance data shown below were determined in tests conducted by Atlas Material Testing Solutions².

Specimen Code	Near-Normal Emittance(ε) Calculated	% Reflectance
SNOWBRITE™	0.94	83.7
INSULKOTE™	0.94	81.5
PERMAKOTE®	0.93	82.7
PERMAKOTE PLUS®	0.94	81.3
ULTRA KOTE™	0.94	83.0
ULTRA KOTE XL™	0.93	81.7
ULTRA SEAL™	0.94	81.8

Average seasonal efficiency of cooling equipment and heating equipment depends upon the kind of equipment and its condition. Electric air conditioning is often rated by a seasonal energy efficiency ratio (SEER) Typical values for old equipment are 7 to 10 Btu/watt-hour. New, very efficient equipment may have SEER values as high as 16 Btu/watt-hour. Coefficient of performance is used in the estimating tool and is a fraction without units formed by dividing SEER by 3.412. Thus, old equipment has COPs from 2 to 3 while new, very efficient equipment may have a COP as high as 4.7.

Heating equipment seasonal efficiency is entered as a fraction in the estimating tool. For fuel burning equipment the fraction is always less than 1.0, ranging from 0.5 to 0.6 for old, inefficient equipment to 0.8 to 0.9 for typical new equipment. Condensing, natural gas furnaces may have seasonal heating efficiencies as high as 0.95. Electric resistance heating converts electricity directly into heat with an efficiency of 1.0. A better use of electricity for heating is to run an electric heat pump. Electric heat pumps are often rated by a seasonal heating performance factor (SHPF). It has the same units as SEER. Coefficient of performance is used in the estimating tool and is a fraction without units with values from 1.5 to 2.0 for typical air-to-air heat pumps.

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