

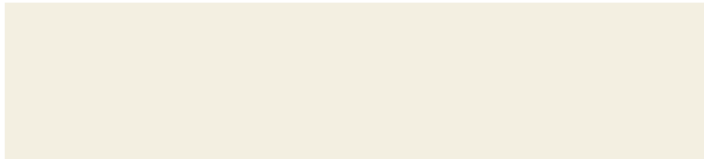
# Insulated Panels

## Nucor Building Systems

### Nucor Kynar 500®



These “cool” coatings feature vivid, fade-resistant color, incredible durability and environmentally friendly cool technology originally developed for Stealth Aircraft in the U.S. Military. This is by far the best paint system available on the market for commercial buildings.



Regal White



Desert Sand



Surrey Beige



Pearl Gray

- Colors shown closely approximate actual coating colors.
- These colors utilize Cool Coating Technology.
- All colors shown are for the exterior of the Insulated Panel.
- Interior panel colors are a standard white.

#### NBS - INDIANA

305 Industrial Parkway  
Waterloo, IN 46793  
260.837.7891

#### NBS - NE SALES OFFICE

201 Granite Run Drive #280  
Lancaster, PA 17601  
717.735.7766

#### NBS - SOUTH CAROLINA

200 Whetstone Road  
Swansea, SC 29160  
803.568.2100

#### NBS - TEXAS

600 Apache Trail  
Terrell, TX 75180  
972.524.5407

#### NBS - UTAH

1050 North Watery Lane  
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# Solar Reflectance, Thermal Emittance and Solar Reflective Index (SRI)

## Solar Reflectance

To be considered “cool,” products must have a Solar Reflectance of at least 25%. Solar Reflectance is the fraction of the total solar energy that is reflected away from a surface.

## Thermal Emittance

Thermal Emittance is the measure of a panel’s ability to release heat that it has absorbed.

## Solar Reflectance Index (SRI)

Put Solar Reflectance and Thermal Emittance together and you get the Solar Reflective Index (SRI). SRI is calculated by using the values of solar reflectance, thermal emittance and a medium wind coefficient. The higher the SRI value, the lower its surface temperature and consequently, the heat gain into the building. Cool metal, coated with the COOL-pigmented PVDF resin, achieve an SRI of 25-88, depending on the color.

Conventional surfaces have low reflectance (0.05 to 0.25) and high thermal emittance (typically over 0.85). Panels with both high reflectance and high emittance can reduce the surface temperature by as much as 30-50% based on color and geographic location, which will result in a reduced heat gain to the building, therefore reducing the energy demand.

| Color        | Solar Reflectance | Thermal Emittance | Solar Reflective Index (SRI) |
|--------------|-------------------|-------------------|------------------------------|
| Regal White  | 72.1%             | 0.87              | 88                           |
| Desert Sand  | 55.7%             | 0.86              | 65                           |
| Pearl Gray   | 49.2%             | 0.87              | 56                           |
| Surrey Beige | 49.0%             | 0.86              | 56                           |

Cool science isn’t just a meaningless marketing term. It’s a technology that is literally revolutionizing the building industry. Combating urban heat islands and high-energy consumption will require innovative products that meet or exceed even the most stringent industry requirements. Our NBS Insulated Panel coating is that type of product.

Just think, the more energy costs rise, the more money you save with Nucor Building Systems Insulated Panels.

| Test                                                                           | Test Method                           | Performance                                                                                    |
|--------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------|
| Dry Film Thickness                                                             | ASTM D5796 Primer<br>ASTM D1005       | 0.3 mils minimum<br>Topcoat 0.7 mils minimum<br>Backer 0.5 mils minimum, total                 |
| Color Uniformity                                                               | ASTM D2244                            | Controlled instrumentally and/or visually                                                      |
| Specular Gloss                                                                 | ASTM D523                             | Low gloss, 5-12% @ 60                                                                          |
| Dry Film Hardness                                                              | ASTM D3363                            | HB minimum                                                                                     |
| Film Adhesion<br>(Dry, wet, boiling water)                                     | ASTM D3359                            | Excellent, no removal                                                                          |
| Direct Impact, Flexibility                                                     | ASTM D2794                            | Excellent, no removal                                                                          |
| Reverse Impact, Flexibility                                                    | ASTM D2794                            | Excellent, no removal                                                                          |
| Formability                                                                    | ASTM D4145                            | 2 T Bend - no removal                                                                          |
| Abrasion Resistance<br>(Falling Sand)<br>(Gardner Scratch)<br>(Taber Abrasion) | ASTM D968<br>ASTM D2197<br>ASTM D4060 | Exceeds 75 liters/mil<br>250-300 grams load<br>0.02 grams lost per 100 cycles<br>C.S. 10 wheel |
| Chemical & Detergent Resistance                                                | ASTM D1308                            | Excellent - no attack                                                                          |
| Salt Spray Resistance                                                          | ASTM B117                             | Passes 1,000 hours, Galvalume                                                                  |
| Humidity Resistance                                                            | ASTM D2247                            | Passes 1,000 hours, HDG/Galvalume                                                              |
| Weathering, South Florida                                                      | ASTM D1019                            | No objectionable change                                                                        |
| Color Retention - 30 years                                                     | ASTM D4214                            | Minimum rating of 8                                                                            |

**These premium coatings have a standard 30-year paint finish warranty.**

[www.nucorbuildingsystems.com](http://www.nucorbuildingsystems.com)

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