



## SECTION 08871

### SOLAR CONTROL FILM

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Solar control film applied to existing glass.

##### 1.2 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data on products to be provided, showing physical properties and including installation instructions.
- C. Test Data: Independent testing agency reports showing compliance with properties specified by reference to a test method.

##### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Experienced in application of self-adhesive window films, with at least 10 applications of similar size and complexity, and approved by manufacturer.
- B. Mock-Up: Before proceeding with work, apply film to one window designated by Architect.
  - 1. Accepted mock-up will constitute standard for workmanship for remaining work.
  - 2. Accepted mock-up may remain.
  - 3. Remove and replace rejected work.

##### 1.4 WARRANTY

- A. Provide film manufacturer's 10-year warranty against failure of film, including change of color, peeling, bubbling, rippling, cracking, delamination, and demetalization; include cost of material and labor for removal and reinstallation.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: V-KOOL, Inc., which is located at: Westland Tech Center 13805 West Rd. Suite 400; Houston, TX 77041; Toll Free Tel: 800-217-7046; Tel: 713-856-8333; Email: [request info \(sales@v-kool-usa.com\)](mailto:sales@v-kool-usa.com); Web: [www.v-kool-usa.com](http://www.v-kool-usa.com)
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

## 2.2 MATERIALS

- A. Solar Control Film: Southwall Technologies V-Kool VK-70 film; virtually clear self-adhesive polyester film, with following characteristics when applied to 1/4 inch (6 mm) clear float glass:
1. Visible Light Transmittance: 70 percent.
  2. Visible Light Reflectance: 8 percent.
  3. Ultraviolet Transmittance: 2 percent.
  4. Infrared Rejection: 94 percent
  5. Ultraviolet Rejected: More than 98 percent.
  6. Shading Coefficient: 0.51.
  7. Solar Heat Gain Coefficient: 0.44.
  8. Total Solar Energy Rejected: 55 percent.
  9. Total Solar Transmittance: 35 percent.
  10. Total Solar Absorption: 38 percent.
  11. Luminous Efficacy: 1.37.
  12. Emissivity: 0.55.
  13. Film Thickness: 1.5 mils (0.04 mm).
- B. Solar Control Security Film: Southwall Technologies V-Kool VK-70 Secure film; virtually clear self-adhesive polyester film, with following characteristics when applied to 1/4 inch (6 mm) clear float glass:
1. Visible Light Transmittance: 66 percent.
  2. Visible Light Reflectance: 8.9 percent.
  3. Ultraviolet Transmittance: 2 percent.
  4. Infrared Rejection: 94 percent
  5. Ultraviolet Rejected: 98 percent.
  6. Shading Coefficient: 0.50.
  7. Solar Heat Gain Coefficient: 0.44.
  8. Total Solar Energy Rejected: 57 percent.
  9. Total Solar Transmittance: 32 percent.
  10. Total Solar Absorption: 42 percent.
  11. Luminous Efficacy: 1.32.
  12. Emissivity: 0.65.
  13. Film Thickness: 8 mils
- C. Solar Control Film: Southwall Technologies V-Kool VK-55 film; gray tinted self-adhesive polyester film, with following characteristics when applied to 1/4 inch (6 mm) clear float glass:
1. Visible Light Transmittance: 57 percent.
  2. Visible Light Reflectance: 7 percent.
  3. Ultraviolet Transmittance: 1 percent.
  4. Ultraviolet Rejected: More than 99 percent.
  5. Shading Coefficient: 0.47.
  6. Solar Heat Gain Coefficient: 0.40.
  7. Total Solar Energy Rejected: 60 percent.
  8. Total Solar Transmittance: 26 percent.
  9. Total Solar Absorption: 41 percent.
  10. Luminous Efficacy: 1.23.
  11. Emissivity: 0.56.
  12. Film Thickness: 2 mils (0.05 mm).
- D. Solar Control Film: Southwall Technologies V-Kool VK-40 film; gray tinted self-adhesive polyester film, with following characteristics when applied to 1/4 inch (6

mm) clear float glass:

1. Visible Light Transmittance: 43 percent.
2. Visible Light Reflectance: 10 percent.
3. Ultraviolet Transmittance: 1 percent.
4. Ultraviolet Rejected: More than 99 percent.
5. Shading Coefficient: 0.41.
6. Solar Heat Gain Coefficient: 0.35.
7. Total Solar Energy Rejected: 65 percent.
8. Total Solar Transmittance: 21 percent.
9. Total Solar Absorption: 50 percent.
10. Luminous Efficacy: 1.05.
11. Emissivity: 0.88.
12. Film Thickness: 2 mils (0.05 mm).

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install without bubbles, ripples, drips, dirt, cuts, tears, or gaps between film and frame.
- C. Clean newly installed film and window frames.
- D. Clean cleaning solutions, run-off cleaning water, and adhesive mounting solution from adjacent surfaces.
- E. Where installed film could be damaged by subsequent construction work provide tape warning strips or barricades to prevent contact.

END OF SECTION