



## ROYAL VINYL SIDING CONFORMANCE STANDARDS

- 1.1 **REFERENCES:** Royal Vinyl Siding conforms to certification standards of Canada, United States of America, Australia and New Zealand
- A. ASTM D 635 - Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supported Plastics in a Horizontal Position.
  - B. ASTM D 638 - Test Method for Tensile Properties of Plastics.
  - C. ASTM D 648 - Test Method for Deflection Temperature of Plastics Under Flexural Load.
  - D. ASTM D 696 - Test Method for Coefficient of Linear Expansion of Plastics.
  - E. ASTM D 1929 - Test Method for Ignition Properties of Plastics.
  - F. ASTM D 2843 - Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
  - G. ASTM D 3679 - Specification for Rigid Poly Vinyl Chloride (PVC) Siding.
  - H. ASTM D 4226 - Test Methods for Impact Resistance of Rigid Poly Vinyl Chloride (PVC) Building Products.
  - I. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.
  - J. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
  - K. CAN/CGSB 41-24-95 - Rigid Vinyl Siding, Soffits and Fascia
  - L. AS/NZ S4256 – Part 4: Unplasticized polyvinyl chloride (uPVC) wall cladding boards
  - M. Regulatory Requirements:
    - 1. ASTM D3679 Standard Specification for Rigid Poly(Vinyl Chloride)(PVC) Siding
    - 2. International Building Code (IBC) - ESR 1656 - 2006, 2009 and 2012
    - 3. International Residential Code (IRC) - ESR 1656 - 2006, 2009 and 2012
    - 4. Florida Building Code- FL# 15935, FL# 13139
    - 5. CAN/CGSB 41.24.95 Rigid Vinyl Siding, Soffits and Fascia
    - 6. Canadian National Building Code (NBC)- CCMC 12244L
    - 7. Australian Standard AS/NZ S4526 Part 4: Unplasticized polyvinyl chloride (uPVC) wall cladding boards

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### MATERIALS

#### **N. Typical Physical Properties:**

1. Tensile Strength: Greater than 6000 PSI, per ASTM D 638.
2. Modulus of Elasticity: Greater than 365,000 PSI, per ASTM D 638.
3. Deflection Temperature Under Load: 165 degrees F (77 degrees C) @ 264 Psi per ASTM D 648.
4. Coefficient of Linear Expansion: Less than  $3.5 \times 10^{-5}$  in/in/degrees F, per ASTM D 696.
5. Impact Resistance: > 60 in-lbs at 32 degrees F (0 degrees C) and > 80 in-lbs at 73 degrees F (23 degrees C) when tested in accordance with ASTM D 4226.
6. Low Temperature Flexibility: Greater than 80, passed CAN/CGSB41-24-95.
7. Surface Distortion (oil can): No distortion at 120 degrees F when tested in accordance with ASTM D 3679.

#### **O. Fire Properties: Meets UBC 42-1:**

1. Flame Spread Index: Less than 25 when tested in accordance with ASTM E 84.
2. Fuel Contribution: 0 when tested in accordance with ASTM E 84.
3. Smoke Developed Index: 510.2 when tested in accordance with ASTM E 84.
4. Self-ignition temperature: 810 degrees F when tested in accordance with ASTM D 1929.
5. Smoke Density Rating: 42.1 percent when tested in accordance with ASTM D 2843.
6. Maximum smoke density: 56.0 percent when tested in accordance with ASTM D 2843.
7. Visibility of exit sign: Good when tested in accordance with ASTM D 2843.
8. Total burn time: Less than 5 seconds when tested in accordance with ASTM D 635.
9. Extent of burning: Less than 10 mm when tested in accordance with ASTM D 635.
10. Fire resistance rating: 1 hour when tested in accordance with ASTM E 119.