IBE26–005 Decorative Material Applied to Elevators

Subject: Graphic film or cladding products are being used to change the appearance of elevator door entrances for decorative purposes or for marketing and promotional use.

Issue: Adding material to an elevator entrance assembly may reduce its fire-protection rating, increasing the rate at which a fire spreads in a building and increasing the risk of entrapment for firefighters using an elevator on "Firefighter's Emergency Operation".

Background:

1. There has been an increased prevalence of graphic film being installed on elevator hoistway entrances consisting of the door panel(s) and entrance frames. Hoistway door entrances are Listed/Certified components that must meet a specific fire-protection rating, and their designs must be tested in accordance with UL/CAN4-S104 to ensure compliance with that rating. The addition of decorative material can decrease this fire-protection rating when not of a type approved by the Certifying Organization.
2. There are two common areas where decorative films, wraps, or cladding products are applied to elevator components, each having a defined code requirement:
   a. Elevator Hoistway Landing Doors (Panels) and Entrance Frame Assemblies *UL/CAN4-S104*
   b. Elevator Car Cab interiors (including Car Door Panels) *CAN/ULC-S102*

Industry Guidance:

Decorative films, wraps, graphics, laminates, cladding systems, and similar products shall not be applied to elevator entrance frames or hoistway door panels unless the product and installation method conform to the requirements of the entrance assembly's Certifying Organization.

ASME A17.1/CSA B44 code clause 8.7.2.10.5 identifies alterations to elevator entrances; therefore, Owners or Contractors proposing to install decorative materials on elevator entrance assemblies must submit a Major Alteration application to AEDARSA as required by Permit Regulation AR 28/2012 and provide documentation from the Certifying Organization or a Registered Engineering Professional demonstrating that the material is acceptable for use on the specific listed entrance assembly before installation.

Documentation demonstrating acceptance by the applicable Certifying Organization or Registered Engineering Professional must be maintained by the Owner and made available to Safety Codes Officers upon request.

Examples of decorative materials include but are not limited to:

- advertising wraps
- graphic films
- vinyl coverings
- decorative laminates
- stainless steel overlay/wraps (reskinning door or entrance frame)
- architectural cladding systems
- branding and promotional graphics
- decorative wood and composite products

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Reference Material

ASME A17.1/CSA B44 Safety Code for Elevators and Escalators:

1. **Entrances (Frames and Panels)**

   Entrance Frames 2.11.11.3.2, 2.11.12.2.4, 2.11.13.2.2
   *Where decorative material is applied to **listed/certified frames**, it shall conform to the requirements of the certifying organization.*

   Panels 2.11.11.5.6, 2.11.13.3.4
   *Where decorative material is applied to **listed/certified panels**, it shall conform to the requirements of the certifying organization.*

   Fire Tests 2.11.14
   ***2.11.14.1** In jurisdictions enforcing the NBCC*
   *(a) the fire-protection rating of entrances and doors shall be determined in accordance with the requirements specified in the **NBCC (CAN4-S104)***

2. **Elevator Car Cab Enclosures**

   ***2.14.2.1.2** In jurisdictions enforcing the NBCC.*
   ***(a)** materials in their end-use configuration, other than those covered by (b), 2.14.2.1.3, and 2.14.2.1.4, shall conform to the following requirements, based on the tests conducted in accordance with the requirements of ASTM E84, ANSI/UL 723, or CAN/ULC-S102:*
   ***(1)** flame spread rating of 0 to 75*
   ***(2)** smoke development classification of 0 to 450*
   ***(b)** floor surfaces shall have a flame spread rating of 0 to 300, with a smoke development classification of 0 to 450, based on the test conducted in accordance with the requirements of CAN/ULC-S102.2*

3. **Alteration Section**

   ***8.7.2.10.5** Marking of Entrance Assemblies*
   ***(a)** In jurisdictions enforcing the NBCC, when an entrance or door panel is altered, the following shall apply:*
   ***(1)** It shall have the fire protection rating not less than that of the existing entrance assembly.*
   ***(2)** It shall be labeled in accordance with the NBCC.*

   ***8.7.2.14.4** In jurisdictions enforcing the NBCC, where any alteration is made to the car enclosure, car doors, or car gates, other than as specified in 8.7.2.14.2, the installation shall conform to 2.14.2.1.2 through 2.14.2.1.4, except that existing car enclosure materials exposed to the hoistway are not required to conform to the flame spread ratings. The existing flame spread rating shall not be diminished*

NBCC(AE) 3.1.8. Fire Separations and Closures

3.1.8.4. Determination of Ratings and Classifications
***1)** Except as permitted by Sentences (2) and 3.1.8.16.(1), the fire-protection rating of a closure shall be determined in accordance with*
***a)** CAN/ULC-S104, "Standard Method for Fire Tests of Door Assemblies,"*

UL Solutions:

https://www.ul.com/news/qa-signs-adhered-elevator-doors

https://www.ul.com/thecodeauthority/knowledge/elevator-door-wraps-and-claddings-what-code-authorities-need-know