

BRADY B-686 PREMIUM CAST HIGH GLOSS OVERLAMINATE

TDS No. B-686

Effective Date: 09/15/1998

Description:

B-686 is a 2.2 mil high-gloss overlam film. It is a premium quality flexible cast vinyl with clear, permanent, acrylic-type pressure sensitive adhesive. B-686 is specifically designed for use with BradyJet™ outdoor durable media to provide maximum weather resistance and improved color saturation for images printed with Brady's pigmented inks.

Details:

Use:

B-686 can be used for premium quality indoor and outdoor applications such as posters, signs, billboards and vehicle graphics where exceptional resistance to UV light, abrasion, pollution and weathering is needed.

Substrate Type:

2.2 mil (0.0022") glossy cast vinyl film with clear, permanent, acrylic-type pressure sensitive adhesive, and release liner.

Thickness (PSTC-33):

Vinyl film: 0.0022 in. (0.056mm)

Adhesive: 0.0015 in. (0.038mm)

Total with liner: 0.0082 in.(0.21mm)

Tensile Strength (PSTC-31):

Break: MD - 11.2 lb/in (196 N/100mm)

CD - 12.6 lb/in (220 N/100mm)

Elongation (PSTC-31):

Break: MD - 212%

CD - 257%

Dimensional Stability (MIL-M-43719C):

MD: 0.003" shrinkage on 6" x 6" sample laminated to aluminum panel

CD: 0.006" shrinkage on 6" x 6" sample laminated to aluminum panel

Adhesive Properties:

Adhesion to Steel (PSTC-1)

20 Minute Dwell (Avg.) -- 75.9 oz/in. (83.5 N/100mm)

24 Hrs. Dwell (Avg.) -- 83.8 oz/in. (92.2 N/100mm)

72 Hrs. Dwell (Avg.) -- 92.8 oz/in. (102.1 N/100mm)

Tack (ASTM D 2979) (Avg.) -- 1025 g (10 N)

Drop Shear (PSTC-7) (Avg.) -- 87 hours

Abrasion Resistance (Method 5306 of U.S. Federal Test Method Std. No. 191A):

CS-17 wheels, 1000 g wts.

Withstands more than 4000 cycles

Gloss @ 60° (ASTM D 2457):

90-95 Gardner units

Minimum Application Temperature:

+40°F (5°C)

Service Temperature:

+50°F to +180°F (+10°C to +82°C)

Image Enhancement:

Laminating B-686 overlam film on BradyJet™ media printed with Brady's pigmented inks enhances absolute color density up to 30%. Color density values are measured by Macbeth® ColorChecker® RD-1255.

Accelerated Weathering (SAE J 1960):

BradyJet™ outdoor durable vinyl (B-665/B-676) printed with Brady's pigmented inks and laminated with B-686 overlam film exhibits no change in density for cyan, magenta and black, and a maximum 25% loss for yellow over 2850 hours in weatherometer.

Water Resistance:

Graphics on BradyJet™ vinyl (B-665/B-676) printed with Brady's pigmented inks and laminated with BradyJet™ B-686 overlam film will not bleed with water submersion up to 30 days. The system may show some white stain at the edges after heavy water exposure. Drying eliminates the stain.

Aggressive Chemicals Resistance:

B-686 overlam film is resistant to mild acids, alkalies, salt solutions and some organic solvents. Resistant to most petroleum-based oils, greases and aliphatic solvents.

Shelf Life:

1 year when stored at 73°F (23°C) and 40% to 50% R.H.

Trademarks:

BradyJet™ is a trademark of Brady Worldwide, Inc.
ColorChecker® is a registered trademark of Gretag-Macbeth Holding A.G.
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ASTM: American Society for Testing and Materials (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)
SAE: Society of Automotive Engineers (U.S.A.)
All S.I. Units (Metric) are mathematically derived from the US conventional units.

Note: All values shown are averages and should not be used for specification purposes.

Test data and test results contained in this document are for general information only and shall not be relied upon by Brady customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Brady for further information.

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