



MASKING TAPE - VINYL AND POLYESTER COMPOSITE BASED, BAKEABLE

WSS-M3G234-A2

1. SCOPE

The material defined by this specification is a vinyl and polyester composite masking tape that is removable after paint oven bake conditions, without any residue that affects glass bonding.

2. APPLICATION

This specification was released originally for materials used to provide localized masking of the windshield and other painted metal flanges prior to the application of urethane adhesive. This tape is to be applied to electrocoated metal surfaces. Tape removal is performed after paint oven bakes.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 TAPE PROPERTIES

3.4.1 Breaking Strength
(ASTM D 1000, pull at
300 mm/min)

As Received (roll material), MPa 35 min.

After Bake, Change, %
(bake per para 5.3, schedule 2) +/- 20

3.4.2 Elongation, %
(ASTM D 1000, pull at
300 mm/min)

As Received (roll material) 80 min

After Bake, Change, %
(bake per para 5.3,
schedule 2) +/- 20

3.4.3 Total Thickness (roll material), mm 0.172 +/- 0.03

Date	Action	Revisions
2006 11 27	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.9, 4; Corrected numbering
2001 05 17	Activated	



3.4.4 Adhesion, N/mm
(180° peel adhesion per
ASTM D 1000)

To Steel (roll material) 0.25 min

To Electrocoat Surface 0.25 min

Shall be removed in a continuous film leaving no residue on surfaces that affects windshield adhesive adhesion.

3.4.4.1 Mask removal after process bake

3.4.4.2 Mask removal after 2 weeks heat age at 38 °C

Test Method:

- Prepare six 100 x 300 x 0.9 mm electrocoat panels as described in para 5.2 for each electrocoat bake condition per 5.3, schedule 1 and 2.
- Apply a 25 x 200 mm tape along the center line of each electrocoat panel.
- Expose minimum electrocoat bake panels to para 5.3, schedule 1, primer and topcoat bakes, and maximum electrocoat.
- Cool panels to room temperature.
- Conduct 180° peel test per the above ASTM procedure.
- Expose the remaining three panels from minimum and maximum bake conditions to 2 weeks at 38 °C.
- Cool panels to room temperature and conduct peel test.

3.5 BONDING PERFORMANCE TO ELECTROCOAT SURFACE AFTER TAPE REMOVAL
(Shall meet all the requirements of shear adhesion per WSB-M2G316B, 3.7.1.)

Panel Preparation:

- Prepare ten electrocoat coupons per each exposure condition described in WSB-M2G316-B, para 3.7.1. Use electrocoat as specified in para 5.2. Bake five coupons at minimum and five coupons at maximum electrocoat bake per 5.4, schedule 1 and 2.
- Apply tape strips to each coupon and bake minimum bake electrocoat coupons per para 5.4, schedule 1, primer and topcoat bakes, and maximum bake electrocoat coupons per para 5.4, schedule 2, primer and topcoat bakes.
- Allow coupons to cool to room temperature.
- Manually remove masking tape.
- Prepare shear adhesion samples and conduct tests per WSB-M2G316B para 3.7.1.