

State of Nevada
Department of Transportation
Materials Division

METHOD OF TEST FOR PAVEMENT MARKING FILM ADHESION

SCOPE

This method describes the procedure used for determining the minimum adhesion for pavement marking film.

APPARATUS

1. Scale, 13.6 kg (30 lb) minimum capacity, accurate to the nearest .02 kg (oz).
2. Clamp, any suitable device that will attach to the scale and sufficiently clamp and hold the pavement marking film firmly in place.

PROCEDURE

1. Prior to taking adhesion measurements, the roadway shall be dry and free from any debris.
2. Adhesion measurements will be taken within the time limits specified in the Standard Specifications and Special Provisions.
3. Measurement locations will be randomly determined by the Engineer.
4. Test frequencies will be in accordance with the "Testing Frequency Schedule - Minimum Required Samples and Tests - Project".
5. Both single and double lines are to be measured and the acceptance criteria shall be followed for each line. Miscellaneous markings such as arrows, onlays, crosswalks, stopbars, etc. will be at the discretion of the Engineer.
6. Randomly select area to be measured. Avoid testing the first and last 100 mm (4 in.) of any stripe. Cut a 25 mm (1 in.) strip transversely through the material. Lift approximately 25 mm (1 in.) of the strip material from the substrata to enable gripping in the clamp, which is attached to a spring-loaded scale (see Figures 1 and 2). Once the scale and clamp are attached to the end of the 25 mm (1 in.) strip, continue to pull until the remaining test strip begins to separate from the substrata. The material shall resist the minimum pull applied at an angle of 90° relative to the surface of the adhered marking film strip. (Refer to Section 634 of the Standard Specifications and Special Provisions for minimum adhesion requirements). If the material does not meet the minimum requirements, randomly select another location, which is within the original area represented by that test, and repeat

this procedure. If the second test passes, the area represented by that test will be accepted. If the second test fails, the area represented fails to meet minimum requirements.

CALCULATIONS

If using a metric scale in kilograms, the following formula shall apply:

$$\text{kilograms} \times 9.81 = N$$

REPORT

Report adhesion results to the nearest N (lb)