

## **DMS-8392, Materials for Motor Vehicle Windshield Validation Stickers**

### **Overview**

Effective Dates: August 2004 – August 2007.

This Specification governs the materials, composition, quality, services, sampling, testing, and prequalification procedure of materials necessary for production of windshield validation stickers for placement on windshield interior surfaces.

### **Payment**

Payment for all materials and services specified will be in conformance with the conditions prescribed in the Contract awarded by the State.

### **Prequalification and Performance History**

#### ***Establishment of Performance History***

Contact the Texas Department of Transportation, Vehicle Titles and Registration Division, 125 East 11th Street, Austin, Texas 78701-2483, to establish a performance history.

Submit technical data exhibiting characteristics of all materials proposed at the time of contact. After review of technical data, the Materials and Pavements Section of the Construction Division (CST/M&P) will contact you regarding the quantities of material required for prequalification testing.

CST/M&P will notify you after material evaluation.

#### ***Prequalification***

Prequalification testing for windshield validation-sticker material will include, but is not limited to, 200 hrs of exposure in an Atlas Type E Weather-Ometer. Weather-ometer exposure will be in accordance with ASTM "G 153, Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials," using Exposure Cycle 1 (18 min. for water spray in every 120 min. of light exposure).

The Department will not prequalify until successful completion of all requirements.

#### ***Re-evaluation***

Report changes in the composition or in the manufacturing process of any material to CST/M&P. Significant changes reported by the manufacturer, as determined by the Director of CST/M&P, may require a re-evaluation of performance.

The Department reserves the right to conduct whatever tests deemed necessary to identify a prequalified material and to determine if a change has been made in composition, manufacturing process, or quality, which may affect its durability or performance.

Changes detected in the composition or in the manufacturing process, not reported by the manufacturer, may be cause for removal of that material from the list of prequalified materials.

### ***Periodic Evaluation***

The Department reserves the right to periodically evaluate the performance of materials and to randomly select samples from materials submitted on State purchase orders.

Failure of materials to comply with the specified requirements may be cause for removal of those materials from the list of prequalified materials.

### **Technical Services**

Provide the validation sticker manufacturing plant with technical services that the Texas Department of Criminal Justice (TDCJ) deems necessary and specifically requests during the training of personnel and the production of windshield validation stickers.

The technical service provided at locations other than the validation sticker manufacturing plant is not a part of this Specification.

Provide 15 man-days of technical service and 5 man-trips to the plant at no extra cost. Each additional man-days of technical service specifically requested by TDCJ, and each trip necessitated by such request, will be compensated at the same rate and subject to the same regulations, where applicable, as provided for State employees, and in effect when technical services are performed.

Provide this technical service when requested by the TDCJ and make it available within 72 hr. after the request.

### **Sampling and Testing**

The Department will sample and test in accordance with *CST/M&P Manual of Testing Procedures*. Unless otherwise noted, the Department will sample from the TDCJ validation sticker plant.

The Department will sample sheet or roll materials in accordance with "Tex-720-I, Sampling Reflective Sheeting," and will sample all liquid materials at the rate of a 0.9 L (1 qt.) sample per batch.

Testing for acceptance of materials submitted on a purchase order will only be considered on those materials that are identifiable as being a material prequalified by the criteria established by this Specification and on the list of prequalified materials.

Costs of sampling and testing are normally borne by the Department; however, the costs to sample and test materials failing to conform to the requirements of this Specification must be borne by the contractor or supplier. This cost will be assessed at the rate established by the Director of CST/M&P and in effect at the time of testing.

Amounts due the Department will be deducted from monthly or final estimates on contracts or from partial or final payments on direct purchases by the State.

### **General Requirements**

All materials supplied under this Specification must be compatible for use with the equipment currently used by the TDCJ's validation sticker plant.

The Department will store the material at the temperatures and humidity recommended by the supplier so that the void feature is not affected.

### **Material Requirements**

This Specification covers the general and specific requirements for all materials necessary for the production of motor vehicle windshield validation stickers.

All materials must meet all requirements of this Specification, except when specific requirements are shown for a particular material.

Materials include transparent void release film, adhesive, and protective backing.

When received, all sheet or roll type materials must have no ragged edges, cracks, blisters, or any foreign materials such as sawdust or flakes and chips of plastics or paper. All materials required to produce completed validation stickers must withstand normal printing and lamination operations utilized by the TDCJ validation sticker plant to produce validation stickers acceptable to the Department.

#### ***Base Film***

The base film must consist of a clear, or lightly tinted in an approved color, transparent film containing the following:

- ◆ a security feature, as specified in 'Base Film - Security Feature' listed under 'Materials Requirements'
- ◆ security seal, as specified in 'Base Film - Security Seal' listed under 'Materials Requirements,' pressure sensitive adhesive and
- ◆ an adhesive protective liner.

The nonadhesive side of the film must be such that it can be readily printed on and, after printing, will readily accept the lamination of an opaque backing material of the color specified.

◆ Protective Liners

- The adhesive protective liner must be of such transparency that 6 mm (1/4 in.) printing on the back of the base film in black, dark blue, and dark red ink is readily legible (20/20 vision) at 0.9 m (3 ft.), when backed with white paper in a normally illuminated 580 lm/m<sup>2</sup>/m<sup>2</sup> (50 ft. candles per square foot) room.
- The physical characteristics of the liner must be such that when it is cut and the base film is bent along the liner cut, with the liner to the outside of the bend, the corner of the liner will become free from the adhesive or it can be easily separated from the adhesive with a fingernail.
- Removal of the adhesive protective liner must not activate the "VOID" character on the base film.

The above characteristics must be retained for a minimum of 21-mos. storage between 16° and 32°C (60° and 90°F), and humidity less than 90%. Since this requirement is of such long duration, the supplier must agree to replace all stickers that fail this requirement if more than 1.0% of the completed stickers fail this requirement to the extent that they are not useable.

◆ Security Feature

- Each sticker must incorporate a repetitive security feature to discourage removal and reuse of the sticker.
- The security feature must be in the form of the word "VOID," which must be a minimum of 9.5 mm (0.375 in.) in height and 0.76 mm (0.030 in.) in stroke width.
- There must be a maximum spacing of 9.5 mm (0.375 in.) between lines and words.
- Activation characteristics of the "VOID" feature must be such that loosely touching the sticker to clean glass in a horizontal position, with adhesive protective liner removed, and then lifting the sticker off, will not activate the "VOID" feature.
- However, rubbing of sticker with moderate thumb pressure or leaving the sticker in place for at least 24 hr., the "VOID" feature must activate upon removal of the sticker from the glass surface.
- The "VOID" characteristic must be of such quality that when a sticker is placed on a clean glass and exposed for 200 hr. in a Weather-Ometer (Atlas, Sunshine Type), or for 12 mos. after affixing to a windshield, the "VOID" feature will activate upon removal of the sticker.

◆ Security Seal

- The security seal must consist of repetitive pattern in the form of 7% opaque design printed on the protective liner face of the base film.
- The design must be of the size, shape, and spacing designated by VTR.

- The security seal must not adhere to the protective liner and must not smear or deface during alignment of the sticker.
- The security seal must not fade or discolor after 200 hr. in a Weather-ometer or 12 mos. after affixing to a windshield.
- ◆ Adhesive
  - The adhesive must be a pressure-sensitive type that will allow repositioning of the sticker before application of pressure to the back of the sticker.
  - Any residue from the adhesive left on glass or windshield surface upon removal of the sticker following exposure (as described in 'Base Film - Security Feature' listed under 'Material Requirements,' must be readily removed by rubbing with the thumb, dry cloth, or use of a common household glass cleaner and cloth.
  - The adhesive must be such that the corner of the base film can be lifted readily with a fingernail sufficient to be able to grasp between the finger and thumbnail to remove the sticker in 1 piece.

### Completed Validation Stickers

In addition to the individual component requirements above, the materials must produce a completed validation sticker, which satisfy the following requirements.

Completed validation stickers consist of all layers including backing, base film, adhesive, and protective liner.

### *Sampling and Testing*

The Department will sample at the rate of 2 stickers per each day's production. The time interval between the 2 samples will be at least 4 hr. as directed by the Department's inspector.

The stickers will then be segregated from the normal production and sent to the Texas Department of Transportation, Construction Division, Materials and Pavements Section (CP51), 9500 Lake Creek Parkway, Austin, Texas 78717.

The validation stickers must not curl, wrinkle, fade, discolor, delaminate, or change dimensions after 200 hrs in a Weather-ometer or 60°C (140°F) oven.

### Archived Versions

The following archived versions of "DMS-8392, Materials for Motor Vehicle Windshield Validation Stickers" are available:

- ◆ [8392-0898](#) for the specification effective August 1998 through May 2003.
- ◆ [8392-0603](#) for the specification effective June 2003 through July 2004.