



CLEANER, GLASS

ESR-M14P5-A

1. SCOPE

This specification establishes the performance and product requirements for an automotive glass cleaner.

2. APPLICATION

This specification was released originally for material used on both exterior and interior glass surfaces. This specification is not intended to limit the automotive glass cleaner to any specific material or material system, but rather defines the performance of the entire system.

3. REQUIREMENTS

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).

- 3.1 Shall be of such composition that it meets all the requirements described in this specification. The material or material system must be in a form that lends itself to ease of application. It must be capable of application as purchased or with equipment normally available.
- 3.2 Must effectively remove, with a minimum of time and effort, all deposits normally encountered on interior and exterior automotive glass surfaces. The glass surface shall have a clean, "like new" appearance after cleaning.
- 3.3 Shall not streak, stain, etch or have abrasive action on the glass surface as it is being wiped off.
- 3.4 Any residue remaining from the material shall not cause smearing or any other adverse condition under the action of the windshield wiper blades.
- 3.5 No objectionable odor either during or after application of the material.
- 3.6 Shall have no detrimental effects on the glass surfaces on which it is applied or affect their function in any adverse way.
- 3.7 Shall have no detrimental effect on automotive parts with which it may come in contact, such as anodized aluminum, windshield wiper assemblies, convertible top and vinyl hardtop materials, upholstery materials or any associated material.

Date	Action	Revisions
2007 09 28	Revised	Inserted 3.0; Deleted 3.16 & 4; Revised 5.
1978 12 08		CPH22-815800-3
1969 05 26	Released	CPY22-947841-1





3.8 The material shall meet the following specific test requirements:

3.8.1 Paint Staining

No more than the master sample on file in the Quality Control Laboratory.

Test Method: Prepare paint panels according to FLTM BI 3-2. Paint colors to be used are black, white and metallic red in each of the following ESB numbers, M1J102-B, M4J54-A, M30J100-A and M32J100-A. To each of these 12 panels, apply the glass cleaner to a 2 in² (1290 mm²). Allow to air dry 2 h maximum at 23 +/- 2 °C. Expose the test panels in the fluorescent sun lamp cabinet as described in FLTM BU 5-1 for 24 h. Remove the panels, wash in tap water, observe for any effects on the painted surfaces.

3.8.2 Sprayability

The material shall be dispensed rapidly, uniformly and shall have a spray pattern allowing a minimum of spray back.

3.8.3 Flammability

The material and propellant shall be of such nature that there is a minimum danger due to flammability.

Test Method: If the material is an aerosol, a flame projection must not exceed 18 in (457 mm) at full valve opening or have a flashback at any degree of valve opening. Test procedure is found in para 191.15 of Volume 21, Code of Federal Regulations, Part 191.

3.9 Must be safe to apply and must meet all federal, state and local regulations. It must be formulated to minimize health hazards due to toxic or otherwise injurious ingredients.

3.10 The material or material system must be capable of storage without any detrimental effects for an extended period of time. Supplier shall furnish all necessary information on types of material required for packaging and on the storage life of the material in each of the product packages supplied. For any particular size package or container for the product, the supplier shall furnish information on safe storage practice and recommendations as to maximum and minimum ambient temperatures and direct sun load conditions at which the product may be stored without any adverse effect. If the package is considered unsafe for storage in an automotive vehicle, the package shall be labeled accordingly and the safe storage conditions specified. For all aerosol containers, the supplier shall furnish all pertinent information on pressures and propellants and any precautions involved in storing, handling and use.

3.11 CHEMICAL & PHYSICAL PROPERTIES

Specific chemical and physical properties are not specified herein, but an Engineering Quality Control Supplement will be issued to cover each approved material. The selected engineering approved source shall furnish appropriate chemical and physical properties along with the production tolerance limits that apply to the material(s) upon which approval was given. The agreed upon values and limits will be issued to Quality Control by the affected product engineering office. These values will then be used by Quality Control for ongoing quality verifications. The Quality Control Supplement is an integral requirement of this specification. If more than one source supplies material to this specification, a Quality Control Supplement will be issued for each specific approved material.