



Fiber Coating Performance - Interior

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This specification covers the finish durability requirement for decorative and/or functional interior parts which are fiber coated with pre-dyed fibers and routine quality control for fiber coated automobile components.

The fibers are generally nylon or polyester. The substrates are generally polypropylene, Acrylonitrile Butadiene Styrene (ABS), polycarbonate, or painted metal. The adhesive used for the application of the fibers to the substrate shall be approximately the same color as the fiber or clear, must be resistant to heat, light, humidity, etc., and shall not cause staining of the fiber coating or adjacent materials. The appearance of substrate may be reviewed by related team

1.2 Applicability. Suitable for instrument panel storage, console box, etc.

1.3 Remarks. All materials covered by this specification are subject to part performance testing through part validation including GMW14444.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ISO 105-A02	ISO 105-X12	ISO/IEC 17025
ISO 105-A03	ISO 8510-2	

2.2 GM Standards/Specifications.

GMW3059	GMW3232	GMW3417	GMW14444
GMW3205	GMW3235	GMW6992	GMW15634
GMW3208	GMW3259	GMW14102	GMW15635
GMW3221	GMW3402	GMW14124	GMW16853

2.3 Additional References.

- CS-10 Taber abrasion wheels, available from www.taberindustries.com/taber-abrading-wheels
- Naphtha, CAS No. 64742-49-0, available from www.essentialhardware.com

3 Test Preparation and Evaluation

3.1 Resources.

3.1.1 Facilities.

3.1.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.1.2 Equipment. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

3.1.3 Test Vehicle/Test Piece. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

3.1.4 Test Time. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

3.1.5 Test Required Information. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

3.1.6 Personnel/Skills. Personnel trained in accordance with the laboratory accreditation and Standard Operating Procedure requirements.

3.2 Preparation. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

3.3 Conditions.

3.3.1 Environmental Conditions. As stated in each standard noted per test procedure in Section 4 including any deviations noted in the procedure paragraph itself.

All test specimens shall be conditioned to GMW3221, Code A for a minimum of 24 h, unless the test method indicates that standard conditioning is not required or that other conditions apply.

3.3.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

3.4 Instructions. Execute each test per the applicable paragraph instructions for each test within Section 4.

Deviations from the conditions of any test method shall be agreed upon between supplier and vehicle manufacturer. All deviations shall be specified on the component drawings, and Statement of Requirements and shall be indicated as such on test reports.

3.5 Data. If all individual readings of a specific test meet or exceed the specified requirements, report the average. Unless otherwise stated, any individual reading outside the specified limit does not meet the requirement. Report all individual test results that do not meet the requirements.

3.6 Safety. This Engineering Standard may involve safety requirements for hazardous materials, the method of operations and equipment. This standard does not propose to address all the safety issues associated with its use. It is the responsibility of the user of this standard to ensure compliance with all appropriate safety and health practices. This would include any specific training that may be required. The safety and health standards include site specific rules and procedures, company rules and procedures, and Government Standards. Contact shall be made with the appropriate site Safety and Health personnel for further direction and guidance in these matters.

3.7 Documentation. Samples of components or material released to this standard shall be tested for conformity with the requirements of this standard and approved by the responsible GM Department prior to the start of delivery of production level components or materials.

Any change to the component or material, e.g., design, function, properties, manufacturing process and/or location of manufacture requires a new release of the product. It is the sole responsibility of the supplier to provide the customer, unsolicited, with documentation of any change or modification to the product/process, and to apply for a new release.

If not otherwise agreed to, the entire verification test shall be repeated and documented by the supplier prior to start of delivery of the modified or changed product.

3.7.1 Test Results. Any test data sheets of material submitted to General Motors for such confirmation (e.g., during Production Part Approval Process (PPAP)) under this specification must list all properties and must apply corresponding test methods of this specification.

4 Requirements and Procedure

4.1 Laboratory Accreditations. Lab testing shall be performed by a laboratory that conforms (meets requirements but may not be formally recognized by a 3rd party) to ISO/IEC 17025 and is acceptable to the responsible GM department. Supplier shall submit a letter of compliance.