



SURFACE VEHICLE RECOMMENDED PRACTICE

J2633™

JAN2026

Issued 2007-08
Reaffirmed 2026-01

Superseding J2633 OCT2019

Wheel and Wheel Trim Weathering Testing for Paint Coatings

RATIONALE

The task group reviewed this standard and agreed to reaffirm the document. This was reviewed at the 9-18-2019 Wheel Standard Committee meeting and it was approved to reaffirm.

SAE J2633 has been reaffirmed to comply with the SAE Five-Year Review policy.

FOREWORD

These weathering test procedures have been agreed to as the preferred methods of evaluating paint systems used for automotive wheels and wheel trim. The intent is to recognize, by the industry, a single common method for each test. These common tests will benefit all by reducing the testing complexity, eliminate the need for specialized test equipment and facilities, utilize improved methods, increase test efficiency, and reduce the overall number of special tests required to approve a paint or paint system.

1. SCOPE

This SAE lab test procedure should be used when performing the following specialized weathering tests for wheels; Florida Exposure, QUV, Xenon and Carbon Weatherometer. In addition to these procedures, some additional post-weathering tests may be specified. Please refer to customer specifications for these requirements.

2. REFERENCES

2.1 Applicable Publications

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest version of SAE publications shall apply.

2.1.1 SAE Publication

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J1960 Accelerated Exposure of Automotive Exterior Materials Using a Controlled Irradiance Water-Cooled Xenon Arc Apparatus

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Full document details: [Wheel and Wheel Trim Weathering Testing for Paint Coatings](#)

For more information on this standard, visit https://www.sae.org/standards/content/J2633_202601/

Documents

Standard, visit Sharing Hub

2.1.2 ASTM Publications

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D523-89 Standard Test Method for Specular Gloss

ASTM G154-06 Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

2.2 Related Publications

The following publications are provided for information purposes and are not a required part of this document.

2.2.1 SAE Publication

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J2634 Sample Preparation for Testing by Scribing

2.2.2 ASTM Publications

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D660-93(2005) Standard Test Method for Evaluating Degree of Checking of Exterior Paints

ASTM D661-93(2005) Standard Test Method for Evaluating Degree of Cracking of Exterior Paints

ASTM D662-93(2005) Standard Test Method for Evaluating Degree of Erosion of Exterior Paints

ASTM D714-02e1 Standard Test Method for Evaluating Degree of Blistering of Paints

ASTM D722-93(2002) Standard Test Method for Grease Resistance of Paper

ASTM D1729-96(2003) Standard Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials

ASTM D2616-96(2003) Standard Test Method for Evaluation of Visual Color Difference With a Gray Scale

ASTM D3274-95(2002) Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation

ASTM D4214-98 Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films

2.3 ASTM Rating System

TABLE 1 - ASTM RATING SCALE

Quality	Rating	Change
Excellent	10	As received, no change
—	9	Very slight change
Very Good	8	Slight change
Good	6	Moderate change
Fair	4	Pronounced change
Poor	2	Severe change
Very Poor	0	Complete failure