

CLASSIFICATION SYSTEM FOR AUTOMOTIVE TOOLING, MACHINERY AND EQUIPMENT LOW VOC WATERBORNE PAINT SYSTEMS

1. SCOPE:

The materials defined by this U.S. CAR / S.A.E Recommended Practice are low VOC water based coatings for automotive tooling and general maintenance.

1.1 Purpose:

The purpose of this document is to:

- 1.1.1 Standardize the paints and primers used for tooling, and general facility maintenance to low VOC water based coatings.
- 1.1.2 Provide a method for specifying these materials by the use of the Munsell color numbering system.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this specification to the extent specified herein. The latest publications shall apply.

- 2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.
- 2.1.2 SSPC Publications: 4400 Fifth St., Pittsburgh, PA 15213.

SP2 minimum	Specific Cleaning Procedures
SP12	Specific Cleaning Procedures

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2.1.3 ASTM Publications: Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM B117	Standard Practice for Operating Salt Spray
ASTM D1535	Method for Specifying Color by the Munsell System
ASTM D3363	Pencil Hardness
ASTM D522	Flexibility
ASTM D3359	Adhesion by tape test
ASTM 2794	Impact Resistance
ASTM D523	Gloss
ASTM D3960	Volatile Organic Compounds
ASTM D1654	Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

3. TESTING REQUIREMENTS AND CONDITIONING:

3.1 Test Requirements:

Test Specimens shall be prepared per paragraph 5 and paragraph 3.3.. The following requirements must be met after 21 days cure.

3.1.1	ASTM B117	Standard Practice for Operating Salt Spray (250 Hr.) ASTM D1654 Procedure A Rating 8-9.
3.1.2	ASTM D3363	Pencil Hardness (HB)
3.1.3	ASTM D522 Method A	Mandrel Bend Test of Attached Organic Coatings (3.2 mm with no cracking)
3.1.4	ASTM D3359	Standard Test Method for Measuring Adhesion by Tape Test, Rating (5A)
3.1.5	ASTM 2794	Impact Resistance (Direct 28 in.-lb / .32 kg m) using Indenter of 12.7 mm.
3.1.6	Substrate for Testing	CRS Q-panel (S-412)

3.2 Statistical Data:

Material suppliers must conform to Quality System Requirements, QS-9000. A control plan for ongoing production verification is required. Appropriate statistical tools must be used to analyze process/product data and assure consistent processing of the materials.