



ACID CATALYST, POLYESTER SYSTEM, BAKING, EXTERIOR TOP COAT

WSK-M99J366-A

1. SCOPE

The material defined by this specification is a solution of acid catalyst in organic solvents. It is to be used in a polyester top coat system required to provide the best exterior quality finish. It shall be suitable for spray application.

2. APPLICATION

This specification was released originally for a material to be used as an acid catalyst to make polyester top coats suitable to use with relatively low baking temperatures.

The catalyst shall only be used for top coats from the same source as required by the vendor. The amount of addition may vary depending on the quality of the top coats specified. It is permitted to use acid catalysts from a source different to that of the top coat if approved by Materials Laboratory of Product Engineering and agreed by the respective vendors.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

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).

3.3 ULTRA VIOLET SPECTROGRAPHIC ANALYSIS

All approved materials shall contain with Initial Sample Report an UV-spectroscopic analysis. The equipment used for this measurement is a Lambda 6 Integrating Sphere spectrophotometer or equivalent. This shall be recorded and filed by Quality Control or relevant Testing Laboratories of the Ford Motor Company.

Subsequent material UV-spectroscopic analysis shall correspond to the data of the Initial Sample.

3.4 CONDITIONING AND TEST CONDITIONS

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5% relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

All panels shall be aged for 72 h at 23 +/- 2 °C or 16 h at 43 +/- 2 °C before testing for resistance properties unless otherwise specified.

In the event of differences between test results, the results after ageing at room temperature shall govern.

Date	Action	Revisions
2006 03 23	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.4, 3.11, 4
2000 11 28	Revised	Updated & Revised para 3.3
1990 02 01	Released	C01031532



All tests according to this specification shall be performed in a controlled atmosphere of 23 +/- 2 °C and 50 - 65% relative humidity if not otherwise specified.

3.5 FLASH POINT

The flash point shall conform to the safety regulations applicable to the plant and/or country where the material shall be used.

3.6 COMPOSITION

3.6.1 Acid

Essentially maleic acid monobutylester, stabilized or not with stabilizing agents as etherified melamine formaldehyde resins or maleic acid anhydride blends, dissolved in organic media in sufficient quantity and nature to effectively cure the polyester resin top coat system at reduced temperature.

The supplier must notify the composition on the Initial Sample Reports.

3.6.2 Circulation Discoloration

Catalyzed top coats shall show no discoloration during circulation in steel paint pipe lines under production conditions.

3.7 PHYSICAL PROPERTIES

3.7.1	Non-volatile (FLTM BI 102-01)	No Requirement
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3.7.2	Density (ASTM D 1475)	Initial Sample +/- 0.05 g/mL
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3.7.3	Acid Number (ASTM D 1467)	Initial Sample +/- 10
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3.7.4 Shelf Stability

During a storage of 6 months at room temperature, as supplied in the original container, it shall not discolor or gel. When mixed with the top coat as received, it shall cause no gel or turbidity and must be free of settling which cannot be dispersed by normal agitation. The viscosity of the material shall not increase.

3.8 PREPARATION OF TEST PANELS (FLTM BI 115-02)

3.8.1 Amount of catalyst

Amount of acid catalyst % to be added to WSK-M50J111-A shall be specified by supplier.

3.8.2 Baking Cycles

In Plant Repair

Enamels containing acid catalyst. Bake 10 minutes at 100 °C metal temperature.