



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PRIMER, WATERBASED, ONE PACK, PLASTIC SUBSTRATES

WSK-M6J174-A

1. SCOPE

The material defined by this specification is a water based primer for plastic substrates.

2. APPLICATION

This specification was released originally for material used as primer for various exterior applications such as radiator grilles, body side moldings, filler flaps etc., made from polyamide, polycarbonate, ABS etc. The primer can be painted with two pack top coat systems and solvent based as well as water based basecoats.

3. REQUIREMENTS

3.1 STATISTICAL PROCESS

Suppliers must conform to the requirements of Ford Quality System Standard Q-101. A mutually acceptable Control Plan as described therein is required for material/source approval. Appropriate statistical tools must be used to analyze process/product data so that variation in the final product is continuously reduced.

3.2 INFRARED SPECTROPHOTOMETRY AND/OR THERMAL ANALYSIS

Ford Motor Company, at its option, may conduct infrared and/or thermal analysis of material/parts supplied to this specification. The IR spectra and thermograms established for initial approval shall constitute the reference standard and shall be kept on file at the designated material laboratory. All samples shall produce IR spectra and thermograms that correspond to the reference standard when tested under the same conditions.

3.3 CONDITIONING

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.

3.4 COMPOSITION

3.4.1 Resin: Water based synthetic resins.

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- 3.4.2 Pigments: Pigments to obtain the desired properties of the primer.

3.5 PHYSICAL PROPERTIES

- 3.5.1 Nonvolatile (FLTM BI 102-01) See Initial Sample +/- 1 %
min 50 %

The nonvolatile content shall be determined at a spray viscosity of 30 s according to para 3.5.4.

- 3.5.2 Density (ASTM D 1475) See Initial Sample +/- 0.05 g/mL

- 3.5.3 Viscosity as supplied (FLTM BI 111-01, FC# 4) See Initial Sample +/- 10 s

- 3.5.4 Spray Viscosity (FLTM BI 111-01, FC# 4) As specified by the supplier

The material can be reduced with water.

- 3.5.5 Organic Solvent Content, max 5 %

The content of organic solvents is defined as weight per cent of organic solvents at spray viscosity per 3.5.4.

- 3.5.6 Storage Stability: 90 days

During a storage at a temperature between 5 and 32 C the material as supplied shall not settle up or cake insoluble. After the storage the material must pass all specification requirements.

3.6 PREPARATION OF TEST PANELS

- 3.6.1 Substrate (see also para 5.1)

Polycarbonate, polyurethane, polyamide, ABS or PP/EPDM as specified on Engineering Drawing. Test panels shall have a smooth surface.

- 3.6.2 Plastic Preparation

The surface to be painted shall be cleaned by an acceptable process to remove mold releasing agents, fingerprints, oils, dirt and moisture.

- 3.6.3 Primer application (see also 5.2)

Film Thickness (FLTM BI 117-01) 20 - 25 micrometre

Flash Off 5 minutes/RT
Baking 20 minutes/80 C