



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

FILM, HOT STAMP, METALLIC, EXTERIOR

WSK-M7G6-A

1. SCOPE

The material defined by this specification is a multiple layer chromium or chromium-nickel stamping film suitable for the decorative hot stamping of plastic parts.

2. APPLICATION

This specification was released originally for exterior plastic parts where a decorative metallic coating is required.

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 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.

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1991 01 02	EP00E01089480000	Released L. Rodigas

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3.4 FILM PROPERTIES

3.4.1 Construction

- . Supporting film, transparent
- . Lacquer
- . Chromium or chromium-nickel coating (metallized in vacuum)
- . Primer adhesive
- . Hot melt adhesive (1)
- . Protective Coating as specified on Engineering Drawing (2)

(1) The hot melt adhesive must be compatible with the plastic material and must be carefully matched with the primer adhesive.

(2) If a protective coating is required on the Engineering Drawing, it shall be compatible with the metallic layer and plastic substrate.

3.4.2 Appearance

There shall be no evidence of surface failure on the hot stamping film.

3.4.3 Color and Gloss

Color and gloss shall match the hot stamped Master Trim Sample as approved by the Design Department.

3.4.4 Thickness
(ISO 4593)

3.4.4.1 Total Thickness 19 - 30 micrometre

3.4.4.2 Supporting Film, min 15 micrometre

Test Method: A tape (e.g. the 3M-tape Nr. 898 or equivalent) shall be applied on the metallized side of the hot stamping film by pressing firmly. The tape shall be removed with an upward motion at a moderate speed. Measure the thickness of the remaining film according to ISO 4593.

3.4.4.3 Coating, min 5 micrometre