



ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

FABRIC, JIGSAW DESIGN, WEFT KNITTED, UNLAMINATED	WSD-M1H597-A
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 3 mm	WSD-M1H597-B1
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 6 mm	WSD-M1H597-B2
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 3 mm	WSD-M1H597-C1
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 6 mm	WSD-M1H597-C2
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 6 mm	WSD-M1H597-D2
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 3 mm PU	WSD-M1H597-F1
FABRIC, JIGSAW DESIGN, WEFT KNITTED, 6 mm PU	WSD-M1H597-F2
FABRIC, JIGSAW DESIGN, WEFT KNITTED, HFW	WSD-M1H597-G
FABRIC, JIGSAW DESIGN, WEFT KNITTED, HFW	WSD-M1H597-H
FABRIC, JIGSAW DESIGN, WEFT KNITTED, HFW	WSD-M1H597-J
FABRIC, JIGSAW DESIGN, WEFT KNITTED, HFW	WSD-M1H597-K

1. SCOPE

The material defined by this specification is a weft knitted Jacquard 20 gauge polyester face fabric which can be flame laminated to polyethane foam and backed with a knitted fabric. It can also be backed with an HFW weldable backcoating.

2. APPLICATION

WSD-M1H597-A Is used for moulded headrests and also adhesive coated for use on inner door panels.

WSD-M1H597-B1, B2, C1, C2, F1, F2 are used for seat wearing surfaces.

WSD-M1H597-D2 is used adhesively bonded door and quarter trim panel applications.

WSD-M1H597-G, H, J & K are used for inner door, quarter trim panels and/or as specified on Engineering Drawings.

JIGSAW DESIGN

WSD-M1H597-A	Unlaminated
WSD-M1H597-B1	3.0 mm, flame laminated to polyether foam and knitted fabric
WSD-M1H597-B2	6.0 mm, flame laminated to polyether foam and knitted fabric
WSD-M1H597-C1	3.0 mm, flame laminated to polyester foam and knitted fabric (EAO use only)
WSD-M1H597-C2	6.0 mm, flame laminated to polyester foam and knitted fabric (EAO use only)
WSD-M1H597-D2	6.0 mm, flame laminated to polyether foam

Date	Action	Changes
1996 02 16	Revised	Updated & Revised para 3.6, 3.9, 3.12 N. Komatsu
1995 02 28	C10460362	Released D2, revised para 3.13.4.2 N. Komatsu
1993 03 10	C10284760	Released M. Judd

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WSD-M1H597-F1	3.0 mm, flame laminated to polyester foam and polyurethane film (EAO use only)
WSD-M1H597-F2	6.0 mm, flame laminated to polyester foam and polyurethane film (EAO use only)
WSD-M1H597-G	HF-weldable vinyl film, adhesive bonded, or an engineering approved alternative
WSD-M1H597-H	HF-weldable acrylic backcoating applied by the doctor-knife spreading technique, or an engineering approved alternative
WSD-M1H597-J	HF-weldable vinyl backcoating applied by the doctor-knife spreading technique, or an engineering approved alternative
WSD-M1H597-K	HF-weldable polyurethane applied by the doctor-knife spreading technique, or an engineering approved alternative

3. REQUIREMENTS

In addition to the requirements listed herein, the fabric shall meet all requirements of WSB-M8P1-H.

3.1 QUALITY SYSTEM REQUIREMENTS

Material suppliers and part producers must conform to Quality System Requirements, QS-9000. Material specification requirements are to be used for initial qualification of materials. A Control Plan for ongoing production verification is required. This plan must be reviewed and approved by the relevant Ford Materials activity and/or Ford Supplier Technical Assistance (STA) prior to production parts submission. Appropriate statistical tools must be used to analyze process/product data and assure consistent processing of the materials.

Part producers using this material in their products, must use Ford approved materials and must conform to a process control plan which has been approved by STA and/or the relevant Materials Activity.

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.

**3.4 FABRIC CONSTRUCTION****3.4.1 Fabric Count, +/- 5 % tolerance
(ASTM D 3887)**

Wales	95 wales/10 cm
Courses	135 courses/10 mm

**3.4.2 Fabric Weight, min
(FLTM BN 106-01)** 300 - 350 g/m2**3.4.3 Pile Height, min
(microscope technique)** 1.7 mm**3.5 COMPOSITION
(ASTM D 629)**

Fabric 100 % polyester

**3.6 YARN CONSTRUCTION
(ASTM D 1244)**

Ground* 220 dTex f40 - 72 (polyester, semi-dull)

Pile 167 dTex f30 - 48 (polyester, bright)

*Ground construction based on a 1:1 tricot. A full knit jersey ground may be used for door panel and seating applications with agreement by Materials Engineering.

3.7 METHOD OF DYEING Yarn dyed and spun dyed or as approved by Materials Engineering**3.8 FINISHED OPERATIONS** As approved by Materials Engineering**3.9 REQUIREMENTS FOR POLYESTER FOAM** As specified in WSD-M2D243-A4**3.10 REQUIREMENTS FOR POLYETHER FOAM** As specified in WSD-M2D243-A2**3.11 REQUIREMENTS FOR THE BACKING
FABRIC** As specified in WSD-M9H134-A**3.12 REQUIREMENTS FOR THE
POLYURETHANE BACKING FABRIC** As specified in WSD-M99H134-B