



## LEATHER, GENUINE, PREMIUM, CHROME REDUCED EMISSIONS

WSS-M1F28-D1

### 1. SCOPE

The materials defined by this specification are steer or heifer hides which have been tanned and processed with full grain and no alteration to the top surface which allows a soft haptic without sacrificing the leather's physical properties. Top coat has a finish that allows for a standard haptic which is an attribute for this leather. Top coat finish is engineered to meet high abrasion characteristics.

### 2. APPLICATION

These specifications were released for material used as seating leather.

#### 2.1 LIMITATION

This specification cannot be used for instrument panel covers, steering wheels or door uppers.

### 3. REQUIREMENTS

#### 3.1 APPROVED SOURCES

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at [www.mats.ford.com](http://www.mats.ford.com) or available externally through a Ford Materials Engineer.

#### 3.2 SUPPLIER RESPONSIBILITY

It is the Leather supplier's responsibility to inform the JIT supplier that subjecting leather to steam or radiant heat or organic solvents during any manufacturing process will adversely affect the hand and appearance characteristics.

#### 3.3 APPEARANCE

The color, grain, gloss and hand shall match the approved Corporate Design master sample.

#### 3.4 LEATHER PERFORMANCE

Materials manufactured to this Specification shall also meet the requirements contained in WSS-M99P43-D/latest.

#### 3.5 VEHICLE INTERIOR ENVIRONMENTAL PERFORMANCE

Materials used in interior applications must meet the requirements outlined in WSS-M99P2222-D1/latest, *Performance, Vehicle Interior Environmental Quality Material/Component Requirements*. Data must be included in material submission package.

#### 3.6 CONDITIONING AND TEST CONDITIONS

| Date       | Action   | Revisions | Rev.0 |
|------------|----------|-----------|-------|
|            |          |           |       |
|            |          |           |       |
| 2017 03 20 | Released |           |       |



Documents

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All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

### 3.7 SAMPLE SELECTION LOCATIONS

The location of the test samples is described in ISO 2418 or ASTM D2813 for physical testing of leather samples. Refer to WSS-M99P43-D/latest for samples to be taken from the belly and backbone areas as noted in Table 1 of that specification.

### 3.8 FINISH

All hides shall show no paint defects or surface blemishes affecting the appearance of the material, such as brush marks or stops.

|                                                                                        |                                                              |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>3.9 THICKNESS</b><br>(ASTM D 1813)                                                  | 1.0 - 1.5mm<br>or as specified on the<br>Engineering Drawing |
| <b>3.10 SHRINKAGE</b><br>(FLTM BN 105-03, except Heat<br>Cycle 100 +/- 2 °C, 3 cycles) | 5.0% max                                                     |

|                                           |             |
|-------------------------------------------|-------------|
| <b>3.11 STIFFNESS</b><br>(FLTM BN 157-02) | 60 +/- 10mm |
|-------------------------------------------|-------------|

Stiffness measurements shall be taken along either side of the backbone. Stiffness must be tested from a hide. Stiffness cannot be taken from a pre or post assembled trim cover.

Embossed or laminated leather will impact stiffness therefore, numerical results could occur outside of the range above.

Stiffness numerical values will not reflect a direct correlation to the haptic properties of leather.

### 3.13 STRETCH AND SET (SAE J855)

|         |         |
|---------|---------|
| Stretch | 25% max |
| Set     | 10% max |

### 3.14 VOC EMISSIONS FROM VEHICLE INTERIOR MATERIALS (FLTM BZ 108-01)

|                              |                           |
|------------------------------|---------------------------|
| 3.14.1 Acetaldehyde          | 180 µg/m <sup>3</sup> max |
| 3.14.2 Formaldehyde          | Report* µg/m <sup>3</sup> |
| Acrolein                     |                           |
| Benzene                      |                           |
| Toluene                      |                           |
| Xylene                       |                           |
| Ethylbenzene                 |                           |
| Styrene                      |                           |
| TVOC                         |                           |
| Acetone                      |                           |
| Sum of Aldehydes and Ketones |                           |

\*See Section 4.1 for Typical Values