

MATERIAL SPECIFICATION

ISS	DATE	WRITTEN	APPROVED		ARTIFICIAL LEATHER. (FIRE RESISTING.)	SPEC. No. CA. 338A
			C.A.C.	R.A.A.F.		
-	OCT '52	AP	HEA	EKDeG.		
A	SEP '54	KA	KA	FD		

1. DESCRIPTION:

This specification covers one grade of artificial leather, suitable for use as upholstery material or any aircraft installation where a fire proof artificial leather is required.

2. MATERIAL:

The artificial leather shall consist of a fabric base cloth coated on one side with a suitable plastic compounded to meet the requirements of this specification.

3. REQUIREMENTS:

- 3.1. Width. The width of the material shall not be less than four feet. A tolerance of plus or minus one inch will be permitted.
- 3.2. Weight. The weight of the finished material shall be 20 ± 2 ounces per square yard.
- 3.3. Colour and Surface Finish. The colour and surface finish shall be as specified on the relevant drawings and purchase orders.
- 3.4. Tensile Strength. The tensile strength shall not be less than 90 pounds in the warp and 70 pounds in the weft when determined in accordance with ASTM D.751-52T Method A. Test specimens shall be conditioned for 4 hours at 21.1°C (70°F) and a relative humidity of 65 per cent before testing.
- 3.5. Ageing. A sample shall be placed in a free circulating air oven and heated at a temperature of 70°C (158°F) for 24 hours. The specimen shall be removed, conditioned for at least 4 hours and the tensile strength shall then be determined as detailed in Clause 3.4. The tensile strength of the material shall not decrease by more than 25 per cent in either warp or weft from that obtained on unaged specimens.
- 3.6. Durability. A sample of the material shall be folded on itself creased tightly and the surface scrubbed against itself ten times over a distance of four inches. The coating shall not crack when subjected to this test.

3. REQUIREMENTS: (cont'd.)

3.7. Color Fastness. The color fastness shall be determined by rubbing with a backward and forward movement for four strokes, six inches of the surface of the coating with a clean white cloth. No color shall be removed in this process. The procedure shall be repeated using a damp cloth. A slight colouring of the cloth will be allowed in this case. A pressure of about one pound shall be used when rubbing.

3.8. Fire Resistance.

A 1" wide sample shall be clamped between two steel plates with $1\frac{1}{2}$ " protruding and the assembly shall be clamped at an angle of 45° to the vertical. The tip of a $1\frac{1}{2}$ " luminous flame shall be applied to the bottom corner of the specimen for 12 seconds and then removed. The time during which the specimen continues to flame after removal of the flame shall not exceed 5 seconds and the time during which glowing continues after flaming ceases shall not be greater than 45 seconds.

The results shall be reported as the average of 6 tests.

3.9. Cold Resistance.

A specimen after ageing for one hour at -35°C in a cold chamber shall no crack or peel away from the fabric when bent 180° flat at that temperature.

4. PACKAGING AND MARKING:

4.1. Packaging.

Packaging shall be accomplished in such a manner as to ensure that the material will not be permanently distorted or creased in transit, or be exposed to harmful materials of any kind.

4.2. Marking.

Each package shall be marked permanently and legibly with the following information.

Size of consignment.
Specification No. CA.338.
Colour and Surface Finish.
Order Number.
Manufacturer's Name or Trade Mark.
Date of Manufacture.

5. APPROVED PROPRIETARY PRODUCTS:

5.1. Approved Products. The following proprietary product will be accepted as satisfying the requirements of CA.338 subject to the requirements of Clause 5.2.

J.J. Davies and Sons Pty. Ltd. . . H. Heavy Quality
743 North Road, "Daynide"
Murrumbena. (Fire Resisting.)

The suppliers shall not change the material or method of manufacture from that used in their sample material without prior notice to, and approval by, the Engineering Dept. Commonwealth Aircraft Corporation Pty. Ltd., Melbourne. Alternative suppliers can only be approved by the Engineering Dept. Commonwealth Aircraft Corporation Pty. Ltd. Melbourne.

5.2. Inspection and Rejection. The listing of proprietary products does not waive inspection requirements. Commonwealth Aircraft Corporation Pty. Ltd. reserves the right to carry out tests as specified in Clause 3 and any or all of a delivery may be rejected if the test results are not satisfactory.

6. APPROVED ALTERNATIVE SPECIFICATIONS:

Notwithstanding any of the requirements of this specification material conforming to the undermentioned specification and accompanied by satisfactory certificates as to compliance with the requirements of that specification will be accepted by Commonwealth Aircraft Corporation Pty. Ltd., as satisfying the requirements of this specification.

U.S. Army Air Force Specification . . . 12026 (latest issue).