D.T.D.5508

Ministry of Defence
Defence Procurement Agency, ADRP2
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Bristol
BS34 8JH

OBSOLESCENCE NOTICE

All DTD specifications were declared obsolescent from 1st April 1999. All DTD 900 series approvals also lapsed at that time. The standards will no longer be updated but will be retained as obsolescent documents to provide for the servicing of existing equipment.

Further Guidance

The aim in declaring the specifications obsolescent is to recognise that the documents are not being updated and thus should be used with care by both purchaser and supplier. For example, a specification could contain valid technical information but may also contain type approval clauses that contradict procurement policy and/or use materials that do not comply with environmental legislation. The obsolescent specification can still be used as a basis for a purchase provided that the supplier and purchaser agree suitable changes to the specification within the purchase order/contract.

For the DTD 900 system, each specification has provided an MoD approved material and process. For these items, the declaration of obsolescence will constitute the termination of both the extant MoD approval and the continuing MoD assessment that had underpinned those approvals. Again, the technical content of the document remains valid and can be used by both purchaser and supplier as a basis for a contract but an acceptable (to the parties) approval/assessment procedure would be required.

MINISTRY OF AVIATION

D.T.D 5508

October, 1955
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Aircraft Material Specification

RUBBER FOR FACE PIECE MOULDINGS OF OXYGEN MASKS TYPES H AND J

NOTE 1. - This specification is one of a series issued by the Ministry of Aviation, either to meet a limited requirement not covered by any existinq British Standard, or to serve as a basis for inspection of materials, the properties and uses of which are not sufficiently developed to warrant submission to the British Standards Institution for Standardisation.

NOTE 2. - Except where otherwise stated, the methods of test shall be as described in British Standard No. B.S. 903, "Methods of Testing Vulcanised Rubber".

SECTION 1

General Requirements

1. Description

The face pieces shall be made from vulcanised natural rubber which has been type approved in accordance with Section 2. They shall be moulded in accordance with the relevant instructions quoted in the contract or order.

2. Colour

The colour of the mouldings shall closely match Quaker Grey, B.S. 381C, No. 629.

3. Odour

The mouldings shall be substantially free from odour other than that of the rubber compound approved under Section 2.

SECTION 2

Type Approval of Rubber Compound

4. Type Approval

Before any particular rubber compound is approved and acceptable as complying with this specification for the production of mouldings, the Manufacturer must satisfy the Director of Chemical inspection that it will meet the requirements specified in Table 1.

5. Test Samples

When applying for approval, the Manufacturer shall forward a sample of the material in the form of a press-cured sheet, $\frac{1}{8}$ in. thick and approximately 8 inches square, to the Director of Chemical Inspection. The test sheet shall be cured at the standard curing temperature for the compound for a time appropriate to a thickness of $\frac{1}{4}$ inch.

At the same time as application for approval is made, the Manufacturer shall supply details of the mix formulation. This information will be treated as confidential.

The compound shall contain 1 per cent of anti-oxidant Agerite White, and shall be free from any ingredient known to cause irritation to the skin, having offensive odour or exerting any other deleterious effect.

6. Tests

The tests listed in Table 1 shall be carried out on test pieces cut from the sample specified in Clause 5.

The properties of the material, when determined by the method quoted in Table 1 shall comply with the requirements also listed in Table 1.

No absolute limits are set for specific gravity or ash, but these will be determined (S.G. at 20° /20°C.), and nominal figures agreed between the Director of Chemical Inspection and the Manufacturer.

SECTION 3

Routine Inspection

7. Routine Inspection

(a) Each batch of rubber compound shall be tested for compliance with the requirements of Tests *(a), (b)* and *(c)* in Table 1, by tests on a suitable sample, press-cured as defined in Clause 5.

(b) At least one batch in every ten batches of rubber compound shall be tested for compliance with the requirements of Tests *(a)* to *(g)* inclusive in Table 1, by tests on a sample sheet, press-cured as defined in Clause 5.

(c) A sample moulding of each design shall be taken periodically and tested for compliance with the requirements of Tests *(b)* to *(f)* inclusive in Table 1.

10. Release Notes

The Manufacturer must state on each Release Note the batch and compound numbers of the rubber used.

TABLE 1

Test	Requirement	Method
(a) Hardness, degrees B.S.	36 ± 4	On thickness 2 x $\frac{1}{8}$ inch
(b) Specific Gravity, 20°/20°C.	Agreed nominal value ± 0.02	Procedure A
(c) Ash	As agreed	
(d) Tensile Strength. lb./sq. in., Minimum	2,250	Type B test pieces for sheet, Type C test pieces for mouldings.
(e) Elongation at break, per cent, minimum	650	do.
(f) Modulus at 300 per cent elongation, lb./sq. in.	130 minimum 220 maximum	do.
(g) Resistance to accelerated ageing, co-efficient of deterioration, per cent		Oven Method, 168 hours at 70°C
(1) Tensile Strength, maximum	± 10	
(2) Elongation at break, maximum.	+ 0 − 15	

Approved for issue,

N. J. L. MEGSON,

Director of Materials Research and Development (Air).

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