18 NOVEMBER 1954

SUPERSEDING
MIL-E-12397A
28 MAY 1953

MILITARY SPECIFICATION

# ERASER, RUBBER-PUMICE
# (For Testing Coated Optical Elements)

*This specification has been approved by the Department of Defense for use of the Departments of the Army, the Navy, and the Air Force.*

## 1. SCOPE

1.1 This specification covers one grade of eraser for use in testing the abrasion resistance of reflection-reducing films for glass optical elements.

## 2. APPLICABLE DOCUMENTS

2.1 The following specifications, standard, and drawing, of the issue in effect on date of invitation for bids, form a part of this specification:

SPECIFICATIONS

FEDERAL

SS-P-821 —Pumice; Ground, Abrasive.

ZZ-R-601 —Rubber Goods; General Specifications (Methods of Physical Test and Chemical Analyses).

MILITARY

JAN-P-120 —Packaging and Packing for Overseas Shipment, Cartons, Folding Paperboard.

MIL-B-4229 —Boxes, Paperboard, Metal-Stayed.

STANDARD

MILITARY

MIL-STD-129—Marking for Shipment and Storage.

DRAWING

ORDNANCE CORPS

D7680606 —Eraser, Rubber Plug.

(Copies of specifications, standards, and drawings required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Material. — Eraser shall be made of high-grade rubber combined with 50, plus or minus 5, percent by weight of the abrasive as filler. The abrasive shall be a fine-ground pumice conforming to grade FFFF of Specification SS-P-821.

3.2 Hardness. — Finished eraser shall have a durometer hardness of 75, plus or minus 5.

3.3 Accelerated aging.—Eraser shall show a hardness change of not more than 10 points after being placed in a Geer oven for 7 days at a temperature of 158° F., plus or minus 2° F.

3.4 Shape and size.—Eraser shall be in conformance with Part No. 6 of drawing D7680606.

3.5 Workmanship. — Eraser shall be a uniform mixture of abrasive and rubber, free from any excessive holes, cracks, splits, or foreign particles which might adversely affect its use.

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## 4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling.—Fifteen or more erasers shall be taken by the inspector at random from each lot in order to determine compliance with this specification.

4.2 Inspection.—Erasers shall be inspected to determine compliance with 3.4 and 3.5 of this specification.

4.3 Tests.

4.3.1 Filler content shall be determined in accordance with Specification ZZ-R-601. Do not discard filler, use it for particle size determination.

4.3.2 *Particle size of abrasive.*—Conformance to the abrasive requirements of 3.1 shall be determined by testing in accordance with Specification SS-P-821.

4.3.3 *Hardness.*—At least five erasers shall be tested for hardness in accordance with Specification ZZ-R-601. The hardness shall be determined on the ends of the eraser.

4.3.4 *Accelerated aging.*—Five erasers shall be placed in a Geer oven or equivalent air oven at 158° F., plus or minus 2° F., for 7 days and then tested as specified in 4.3.3.

## 5. PREPARATION FOR DELIVERY

5.1 Domestic shipment — immediate use. —No preservative shall be required. Erasers shall be packaged in accordance with commercial suppliers practice.

5.2 Domestic shipment — limited storage. —No preservative shall be required. Erasers shall be unit packaged fifty (50) to a carton. Cartons shall conform to either Specification Jan-P-120 or MIL-B-4229. Twelve cartons shall be packaged in an exterior shipping box. Exterior containers shall conform to Specification MIL-B-4229.

5.3 Domestic shipment—extended storage. —Same as 5.2.

5.4 Marking.—Marking for shipment shall be in accordance with Standard MIL-STD-129.

## 6. NOTES

6.1 Ordering data. — Procurement documents should specify the following:

(a) Title, number and date of this specification.

(b) Place of inspection.

Patent notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

Custodians:
Army—Ordnance Corps
Navy—Bureau of Aeronautics
Air Force

Other interest:
Navy—Or.



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# SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity *(as indicated on reverse hereof)*.

SPECIFICATION

ORGANIZATION *(Of submitter)*

CITY AND STATE

CONTRACT NO.

QUANTITY OF ITEMS PROCURED

DOLLAR AMOUNT
$

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

☐ YES ☐ NO IF "YES", IN WHAT WAY?

4. REMARKS *(Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)*

SUBMITTED BY *(Printed or typed name and activity)*

DATE

DD FORM 1 APR 63 1426 REPLACES NAVSHIPS FORM 4863, WHICH IS OBSOLETE PLATE NO. 19410

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