

# JAN-C-677

30 SEPTEMBER 1946

## NATIONAL MILITARY ESTABLISHMENT SPECIFICATION CELLULOSE; REGENERATED, STRIP (For Use in Ammunition)

This specification was approved by the Departments of the Army, the Navy, and the Air Force for use of procurement services of the respective Departments.

### A. APPLICABLE SPECIFICATIONS

A-1. The following specifications, of the issue in effect on date of invitation for bids, form a part of this specification.

JOINT ARMY-NAVY SPECIFICATION  
JAN-N-246—Nitroglycerin.

U. S. ARMY SPECIFICATION  
100-2—Standard Specification for Marking Shipments by Contractors.

### B. GRADE

B-1. This specification covers one grade of regenerated cellulose strip furnished in two width classes.

### C. MATERIAL AND WORKMANSHIP

C-1. The material shall be furnished in 4-ply strip cemented or bonded together with a water-insoluble adhesive. The material shall be transparent, clear, and free from bubbles and other blemishes which would render the material unfit for the purpose intended. Splicing of the strip shall not be permitted.

### D. GENERAL REQUIREMENTS

D-1. *Tensile strength*.—Maximum, 17,000 p.s.i. in the long direction.

D-2. *Neutrality*.—When tested as specified in paragraph F-4b, the water in which the strip has been immersed shall be neutral to litmus.

D-3. *Resistance to nitroglycerin*.—When tested as specified in paragraph F-4c, the material shall not swell or permit the passage of nitroglycerin.

D-4. *Thickness*.— $0.006 \pm 0.0005$  inch.

### E. DETAIL REQUIREMENTS

E-1. *Widths*.—

E-1a.  $\frac{1}{2} \pm \frac{1}{32}$  inch.

E-1b.  $\frac{5}{16} \pm \frac{1}{32}$  inch.

### F. METHODS OF SAMPLING, INSPECTION, AND TESTS

F-1. *Size of lot*.—The lot size shall be as specified in the contract or order.

**F-2. Sampling.**—Samples shall be selected in sufficient size and number to perform the tests. They shall be representative of the lot.

**F-3. Inspection.**—Unless otherwise specified in the contract or order, inspection shall be made at the point of delivery.

**F-4. Tests.**—

**F-4a. Tensile strength.**—A minimum of 10 samples, 6 inches in length are necessary for performance of the tensile strength test. The samples shall be conditioned at  $73^{\circ} \pm 2^{\circ}\text{F}$ . and  $50 \pm 2$  percent relative humidity for 16 hours prior to test. Tensile strength tests shall be made on a Scott tensile tester or equivalent testing device. The distance between the jaws shall be 4 inches.

**F-4b. Neutrality.**—Three samples, 24 inches long, shall be immersed in 50 ml. of water, neutral to litmus, for 4 hours at  $70^{\circ}$  to  $80^{\circ}\text{F}$ . At the end of this period, the water shall be tested for neutrality to litmus.

**F-4c. Resistance to nitroglycerin.**—Ten samples, 3 inches long, shall be suspended horizontally by gripping the ends with a suitable holder. Place three drops of nitroglycerin, conforming to Joint Army-Navy Specification JAN-N-246, on the top surface of each sample at intervals of  $\frac{1}{4}$  inch. The drops shall be  $0.06 \pm 0.02$  ml. in volume. Place the samples in an oven at  $50^{\circ} \pm 3^{\circ}\text{C}$ . for 48 hours. At the end of that time, remove the sample, allow to cool, and withdraw the drops of nitroglycerine with the corner of blotting paper. (Immediately destroy the nitroglycerine by immersing the blotting paper in a solution of 10 percent KOH in ethyl alcohol.) Remove the sample from the holder and examine the underside to determine whether any nitroglycerine has passed through the strip or has caused swelling.

#### **G. PACKAGING, PACKING, AND MARKING FOR SHIPMENT**

**G-1.** The strip shall be packed in flat coils having a maximum outside diameter of 6 inches and an inside hole diameter of  $1\frac{1}{2}$  inches. The coils shall be clamped together in such a manner as to eliminate coning of the coils during storage.

**G-2. Marking.**—In addition to any special marking required by the contract or order, shipments for the Army shall be marked in accordance with the requirements of the U. S. Army Specification 100-2.

#### **H. NOTES**

**H-1.** Regenerated cellulose strip covered by this specification is intended for use in primer vent seals for small arms ammunition.

**H-2.** This specification replaces Frankford Arsenal Tentative Specification FXS-466.

**H-3.** Copies of this specification (required for Department of the Army purchases) may be obtained from the Office, Chief of Ordnance, Department of the Army, Washington 25, D. C.

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**ARMY: O.**

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