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# SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J562

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## Nonmetallic Loom

### 1. Scope

**1.1 Rationale**—This document has been rendered obsolete by J2192 and is no longer necessary.

**2. *References***—There are no referenced publications specified herein.

**3. *General Data***—Nonmetallic flexible loom is recommended for use as an insulated covering giving mechanical protection over insulated wire, metal tubing, or other parts requiring a water-, oil-, and acid-proof covering resistant to fire or abrasion. It is also recommended for use as a covering for copper or other metal tubing to prevent crystallization and to eliminate rattles.

**4. *Construction***—The loom shall be of single-wall construction, the material used to be strictly nonmetallic and of sufficient mechanical strength so that when formed or woven into a tubing it shall pass the tests for the size specified. Finished loom shall be free from obstruction and shall permit easy introduction of the maximum size wire or other part for which it is normally suited. Loom in any length shall slip freely over a polished mandrel 12 in. long and equal in diameter to the minimum inside diameter specified. The dimensions of the standard sizes are listed in the accompanying table.

### 5. Saturation

**5.1 Fire Resistant Loom**—The loom shall be of such construction that when the asphaltic compound or equivalent water, acid, and fire resisting compound is applied, it will thoroughly impregnate the outside and lightly impregnate the inside of the loom.

**5.2 Oil Proof Loom**—The loom shall be thoroughly impregnated with a gum saturator or its equivalent. The saturator, when dry, shall be free from tackiness and gummy deposits. This impregnation is introduced to prevent absorption of moisture, oil or gasoline, to bind the material together to give the required wall strength and to prevent fraying.





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6. ***Finish***—For a fire resistant loom the outer surface shall be thoroughly covered by an asphaltic or equivalent water, acid, and fire resisting compound. Over the asphaltic or equivalent water, acid, and fire resisting compound, the loom may be coated with a thin coating of good paraffin wax or equivalent. For an oil-proof loom the outer surface shall be thoroughly covered with at least two coats of black pyroxylin lacquer or its equivalent, producing a good luster and a good bond to the fabric. The lacquer must be thoroughly dried before wrapping or boxing the loom for shipment. The use of heavy finishes or saturators to give artificial appearance is not permitted. The pyroxylin must be sufficiently plasticized so that it will not crack on a piece of loom kept three months at room temperature and then bent back sharply upon itself. Loom with finish of a higher luster than can be obtained with two coats of lacquer as specified above shall be considered special and should be covered by other specifications when required.

7. ***Tests***—A 6 in. piece of loom totally immersed in water at 70 °F for 24 hr and then blown out with a mild air current immediately after removing the water shall not have an increase in weight of more than 35%. The wall must not collapse when the loom is bent to a radius of five times the inside diameter at 70 °F. The compound and finish must not crack open in this test.

   The material in the wall of the loom shall not crack or break when a 3 in. length is flattened between two steel plates. When the inside diameter of loom is 3/8 in. or smaller, the distance between plates is to be 11/64 in. When the inside diameter of loom is over 3/8 in., the distance between plates is to be 9/32 in. The finish shall not show excessive cracking when loom is subjected to this test.

   The polished mandrels used for checking the inside diameters shall show no sticking or discoloration up to 150 °F.

   Loom shall be capable of standing a tension test for 5 min without breaking or opening at any point as required in Table 2.

8. ***Additional Test For Oil Proof Or Fire Resistant Loom***—When a piece of loom is totally immersed in an equal mixture of cylinder oil, kerosene, and gasoline at 70 °F for 5 min and then subjected to a temperature not exceeding 250 F for 1 hr, the saturating compound must not drip from the loom nor the finish show any appreciable defects.

   Flame-resisting qualities shall be incorporated in the saturation or finish or both for the loom to pass the following test: The loom shall not convey fire nor support combustion for more than 1 min after five 15-sec applications of a standard test flame with intervals of 15 sec between applications. A standard test flame is the blue flame, about 5 in. high, produced by a 1/2 in bunsen burner fed with ordinary illuminating gas at normal pressure. The loom shall be held vertically with either the lower or the upper end thoroughly sealed to prevent the passage of air, and the flame must be applied horizontally.