

MIL-STD-190C

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MILITARY STANDARD

IDENTIFICATION MARKING OF

RUBBER PRODUCTS



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MIL-STD-190C

DEPARTMENT OF DEFENSE
WASHINGTON, DC 20301

Identification Marking of Rubber Products

MIL-STD-190C

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Recommended corrections, additions, or deletions should be addressed to: Director, Army Materials and Mechanics Research Center, ATTN: DRXMR-LS, Watertown, MA 02172.

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1. SCOPE

1.1 This standard establishes the colors, letters and symbols which are to be used in marking rubber products or items to indicate environmental resistance, vendor identification and date of manufacture. Shipment and inspection marking are not within the scope of this standard.

1.2 This standard does not make the use of color markings mandatory, it merely defines the colors to be used if color markings are called for. The decision as to whether or not color markings are used is a function of the item specification or the drawing.

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2. REFERENCED DOCUMENTS

2.1 Vendors Identification Guide for Moulded and Extruded Goods, published by the Rubber Manufacturers Association, Inc., 1901 Pennsylvania Avenue, N.W. Washington, DC 20006.

2.2 ANA Bulletins refers to ARMY-NAVY-AIR FORCE Bulletins.

3. DEFINITIONS

(Not applicable)

4. GENERAL REQUIREMENTS

4.1 Performance and legibility. Marking of rubber products shall be such as to not rub off or be otherwise effaced by exposure to the elements, action of fluids, oils or environment to which the material is resistant (see 5.3), and contact incident to normal handling, shipment and storage. Legibility of the markings shall be such as required for ready readability and temporary identification. Permanent identification is preferred if such does not affect the function of the product. The size of the symbols or letters shall be commensurate with the size of the product being marked.

4.2 Deleterious effect. Marking of rubber products shall be accomplished in a manner which shall not adversely affect the acceptability and function of the finished product.

4.3 Exceptions. Only that part of the identification system which applies to the individual requirements of the item specification is intended to be used. Only one set of manufacturer's letters will be specified on one item. More than one color dash may be used to indicate resistance to more than one environment. When more than one colored dash is used on one item, the order in which the dashes appear should be the same as the order of colors indicated in paragraph 5.3. On small molded products, where the cross sectional diameter is not sufficient or functional surfaces do not permit marking in accordance with this standard, equivalent marking shall be placed on the containers in which the item is packaged. Any exceptions to marking of the product itself is allowed only if specified. The exceptions shall be specified in either the applicable drawing or the item specification, as appropriate, or in both places.

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5. DETAIL REQUIREMENTS

5.1 Marking. Marking shall be accomplished by molding or extruding (either recess or in relief) or by external application of a substance such as paint, cement or lacquer. The type marking and the marking material shall be specified in the item specification so that critical surfaces are not damaged.

5.2 Symbols and letters. The symbol and letter designations published in the Rubber Manufacturer's Association "Vendors Identification Guide for Molded and Extruded Goods" shall be used where applicable. The size shall be consistent with the size of the part, but shall normally be in the range of 1/16 to 1/8 inch (1.6 to 3.2mm). The color shall be white or the same as the color used to indicate resistance to environment listed in table I. When marking is accomplished by molding, the use of a colored paint, cement or lacquer is not required.

5.3 Colors for environmental resistance. The colors indicated in table I are to be applied as dashes approximately 1/16 inch (1.6mm) wide by 1/4 inch (6.4mm) long and repeated at intervals of 10 inches (254mm) where size of product permits.

Table I. Colors for environmental resistance

Color	Resistant to environment
Blue	Petroleum hydraulic fluid
Brown	Polar fluids (brake fluid)
Green	Weather (ozone)
Grey	Pneumatic (air or nitrogen)
Orange (one dash)	Low temperature (Down to -40°F (-40°C))
Orange (two dashes)	Arctic low temperature (Down to -65°F (-53.4°C))
Red	Hydrocarbon fuel
White	Phosphate ester fluids
Yellow	Petroleum lubricating oil

5.4 Dating. Unless otherwise specified, the date of manufacture shall indicate the quarter of the calendar year and the year. For example, 2Q-77 for the second quarter of 1977.

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5.5 Intended use. This standard is intended to serve to the maximum practical extent as a basis for the selection of identification marking for molded and extruded rubber products where such do not already exist for a rubber item. Since this system may be in conflict with existing systems in use, it is intended that this system insofar as possible will be incorporated into the next revisions of the various item specifications. Changes to effect conformance with this standard will be accomplished at the earliest possible date. In case of conflict, marking requirements prescribed by end-item specifications ANA Bulletins and other specialized documents shall govern.

5.5.1 Ordering data. When this standard is used as a reference, procurement documents or the applicable drawing or item specifications should include the following information:

- a. The type marking.
- b. The marking material.
- c. The color(s) for environmental resistance.
- d. Any exceptions to the MIL-STD-190 requirements.

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