§ 160.055–4 Materials—nonstandard life preservers.

All materials used in nonstandard life preservers must be equivalent to those specified in §160.055–3 for standard life preservers.


(a) General. This specification covers life preservers which essentially consist of plastic foam buoyant material arranged and distributed so as to provide the flotation characteristics and buoyancy required to hold the wearer in an upright or slightly backward position with head and face clear of the water. The life preservers are also arranged so as to be reversible and are fitted with straps and hardware to provide proper adjustment and fit to the bodies of various size wearers.

(b) Construction—standard, vinyl dip coated life preserver. This device is constructed from one piece of unicellular plastic foam with neck hole and the body slit in the front, vinyl dip coating, and fitted and adjustable body strap.

(1) Buoyant material. The buoyant material of the life preserver shall be molded shape or made from one or two sheets of foam finished so as to have dimensions after coating in accordance with the pattern shown on Dwg. No. 160.055–IA, Sheet 1, for adult size and Sheet 2 for child size. The reinforcing fabric shall be cemented on the foam buoyant body before coating.

(2) Coating. After all cutting and shaping of the buoyant body and installation of the reinforcing fabric, the entire body of the life preserver shall be coated evenly and smoothly to a minimum thickness of 0.010” with a liquid vinyl coating material of the type described in §160.055–3(j).

(3) Body strap. After the coating on the buoyant body of the life preserver is fully cured, a nylon webbing body strap shall be attached as shown on Dwg. No. 160.055–IA.

(4) Stitching. All stitching shall be a short lock stitch, conforming to Stitch Type 301 of Federal Standard No. 751, with nylon thread, and there shall be not less than 9 nor more than 11 stitches to the inch. Bar tacking with nylon thread is acceptable as noted on Dwg. No. 160.055–1A.

(c) Construction—standard, cloth covered life preserver. This device is constructed from three sections of unicellular plastic foam contained in a cloth envelope and has a neck hole, the body slit in the front, and a fitted and adjustable body strap.

(1) Buoyant material. The buoyant material of the life preserver shall be three sections of foam cut so as to have finished dimensions in accordance with the patterns shown on Dwg. No. 160.055–IB, Sheet 2, for adult size and Sheet 4, for child size. One or two layers of foam may be used to make up each section.

(2) Envelope. The envelope shall be cut to the pattern shown on Dwg. No. 160.055–IB, Sheet 1, for adult size, and Sheet 3, for child size, and joined by seams and stitching as shown on the drawing. Alternate finished envelopes are permitted as noted on Dwg. No. 160.055–IB.

(3) Body strap. The body strap may be cotton or nylon webbing and shall be attached by stitching as shown on the Dwg. No. 160.055–IB, Sheet 1, for adult size and Sheet 3, for child size.

(4) Stitching. All stitching shall be a short lock stitch conforming to Stitch Type 301 of Federal Standard No. 751, and there shall be not less than 7 nor more than 9 stitches to the inch if cotton thread is used, and not less than 9 nor more than 11 if nylon thread is used. Bar tacking is acceptable as noted on Dwg. No. 160.055–IB.

(d) Workmanship. Life preservers shall be of first-class workmanship and shall be free from any defects materially affecting their appearance or serviceability.


§ 160.055–6 Construction—nonstandard life preservers.

(a) General. The construction methods used for a nonstandard life preserver must be equivalent to the requirements in §160.055–5 for a standard life preserver and also meet the requirements in this section.