TABLE 160.077–2(j)—REFERENCE VEST MINIMUM KAPOK WEIGHT AND VOLUME DISPLACEMENT

<table>
<thead>
<tr>
<th>Reference PFD type</th>
<th>Front insert (2 each)</th>
<th>Back insert</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum kapok weight g (oz)</td>
<td>Volume displacement N (lb)</td>
</tr>
<tr>
<td>Devices for adults, weighing over 40 kg (90 lb):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type II, III, and V Recreational</td>
<td>234 (8.25)</td>
<td>40 ± 1 (9.0 ± 0.25)</td>
</tr>
<tr>
<td>(50–90 lb):</td>
<td>184 (6.5)</td>
<td>31 ± 1 (7.0 ± 0.25)</td>
</tr>
<tr>
<td>Devices for youths, weighing 23–40 kg</td>
<td>156 (5.5)</td>
<td>26 ± 1 (5.75 ± 0.25)</td>
</tr>
<tr>
<td>(30–50 lb):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type I</td>
<td>128 (4.5)</td>
<td>21 ± 1 (4.75 ± 0.25)</td>
</tr>
<tr>
<td>Type II</td>
<td>100 (3.5)</td>
<td>17 ± 1 (4.75 ± 0.25)</td>
</tr>
</tbody>
</table>

1 Both Recreational and Commercial.

(k) Second stage donning means adjustments or steps necessary to make a PFD provide its intended flotation characteristics after the device has been properly donned and then inflated.

(i) SOLAS lifejacket, in the case of a hybrid inflatable PFD, means a PFD approved as meeting the requirements for lifejackets in the 1983 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74/83), in addition to the requirements of this subpart.


§ 160.077–4 Type.

(a) A hybrid PFD that successfully passes all applicable tests may be approved as a Type I, II, III, or V for various size ranges of persons weighing over 23 kg (50 lb), as Type I or II for persons weighing 14–23 kg (30–50 lb) or as Type I or II for other sizes. A Type V PFD has limitations on its approval.

(b) The approval tests in this subpart require each Type V hybrid PFD to have at least the same performance as a Type I, II, or III PFD for adult and youth sizes or Type I or II PFD for child sizes.

[CGD 78–174, 60 FR 2486, Jan. 9, 1995]

§ 160.077–5 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subpart with the approval of the Director of the Federal Register. The Office of the Federal Register publishes a table, “Material Approved for Incorporation by Reference,” which appears in the Finding Aids section of this volume.
that table is found the date of the edition approved, citations to the particular sections of this part where the material is incorporated, addresses where the material is available, and the date of approval by the Director of the Federal Register. To enforce any edition other than the one listed in the table, notice of the change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is on file at the Office of the Federal Register, Washington, DC 20408, and at the U.S. Coast Guard, Lifesaving and Fire Safety Division (CG-5214), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

(b) The materials approved for incorporation by reference in this subpart are:

**AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)**

100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.


ASTM D 751–95, Standard Test Methods for Coated Fabrics—160.077–19


**FEDERAL STANDARDS**

In Federal Test Method Standard No. 191 the following test methods:

- (1) Method 5100, Strength and Elongation, Breaking of Woven Cloth; Grab Method.
- (2) Method 5132, Strength of Cloth, Tearing; Falling-Pendulum Method.
- (3) Method 5134, Strength of Cloth, Tearing; Tongue Method.
- (4) Method 5804.1, Weathering Resistance of Cloth; Accelerated Weathering Method.


**MILITARY SPECIFICATIONS**


**NATIONAL BUREAU OF STANDARDS (NBS)**


**UNDERWRITERS LABORATORIES (UL)**

UL 1191, “Components for Personal Flotation Devices.”

UL 1517, “Hybrid Personal Flotation Devices.”

§ 160.077–6 Approval procedures.

(a) **General.** Subpart 159.005 of this chapter contains the approval procedures. Those procedures must be followed, excepted as modified in this paragraph.

(1) Preapproval review under §§159.005–5 and 159.005–7 may be omitted if a similar design has already been approved.

(2) The information required in all three subparagraphs of §159.005–5(a)(2) must be included in the application.

(3) The application must also include the following:

- (i) The type of performance (i.e. Donned Type I, Type II or Type III) that the PFD is designed to provide.
- (ii) Any special purpose(s) for which the PFD is designed and the vessel(s) or type(s) of vessel on which its use is planned.
- (iii) Buoyancy and torque tolerances to be allowed in production.
- (iv) The text of any optional marking to be provided in addition to required text.
- (v) The manual required by §160.077–29 (UL 1517 text may be omitted in this submission).
- (vi) The size range of wearers that the device is intended to fit.

(4) The description of quality control procedures required by §159.005–9 of this chapter to be submitted with the test report may be omitted as long as the manufacturer’s planned quality control procedures comply with §160.077–23.

(b) Waiver of tests. If a manufacturer requests that any test in this subpart be waived, one of the following must be provided to the Commandant as justification for the waiver:

- (1) Acceptable test results on a PFD of sufficiently similar design.
- (2) Engineering analysis showing that the test is not applicable to the particular design or that by design or construction the PFD cannot fail the test.