VELCRO® brand nylon fasteners consist of two mating components: hook and loop. The woven hook tape consists of minute, flexible “hooks” which engage with a mating loop tape comprised of small, soft “loops.” When pressed together, the resulting closure is adjustable, highly secure and jam proof. To reopen (cycle), the closure is simply peeled apart. VELCRO® brand woven hook and loop tapes are manufactured by a precise and refined weaving process which ensures uniformity of dimensions and construction. VELCRO® brand molded hook tape (MVA #8) is made from a continuous injection molding process to form an “arrowhead” design which is much less flexible than a woven hook. When engaged with a mating nylon (or polyester) loop tape, the molded hook offers the advantage of substantially increased holding strength over woven hook. Conversely, molded hook fasteners (arrowhead) do not cycle as readily with loop tapes; repeated disengagement will noticeably degrade loops. Please see the section “Limitations - Molded Hook” on the back cover.

ATTACHMENT
A wide range of attachment methods are available, including:
- SEWING
- PRESSURE SENSITIVE ADHESIVES
- DIELECTRIC HEAT SEALING
- HEAT ACTIVATION
- SOLVENT ACTIVATION
- MECHANICAL
- ULTRASONIC WELDING
- MOLD-IN
For further information about specific attachment procedures, please contact your account manager or local sales office.

WOVEN NYLON HOOK AND LOOP TAPES
Velcro USA Inc. offers two nylon woven hook tapes and two woven nylon loop tapes
- Hook #65 - Designed for maximum cycling (opening and closing); 6.5 mil Nylon monofilament with over 400 hooks per square inch.
- Hook #88 - Heavy duty hook tape - somewhat lower cycle life than Hook #65; 8.0 mil Nylon monofilament with over 300 hooks per square inch.
- Loop #1000 - A napped loop tape used in most standard closure applications with both Hook #65 and #88.
- Loop #2000 - An unnapped loop tape with a greater cycle life and less peel resistance than Loop #1000. Typically used where closure is to be effected around a radius (such as a strapping application).

“Napped” versus “Unnapped” Loop.
Essentially, napped tape consists of woven nylon loops that are “randomly disoriented” in a separate operation after weaving. An unnapped tape is a woven nylon tape that is not napped.

KNIT NYLON LOOP TAPES
#3001, #3003, #3200, #3610, #3800, #3905 - Knit nylon loop tapes have been designed for use in a wide range of applications from disposable products to high strength fabricated straps. See the chart on pages 2 and 3 for detailed information.

MOLDED NYLON HOOK TAPE
Velcro USA Inc. offers one VELCRO® brand molded nylon hook product
- MVA #8 - A molded “arrowhead” design nylon hook tape with 180 hook elements per square inch. Used where high strength fastening is required. Limited cyclability. Hooks engage with most loop materials and open pore cell foams.
**WOVEN NYLON HOOK AND LOOP FASTENERS**

<table>
<thead>
<tr>
<th>Loop #1000 - napped finish, everyday fastening products</th>
<th>Hook #65</th>
<th>HIGH</th>
<th>11.0</th>
<th>9.5</th>
<th>6.5</th>
<th>1.00</th>
<th>-70°F/-56.7°C to 200°F/93.3°C</th>
<th>15 standard colors with dye-to-match capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop #1200 - unnaped finish, for more demanding applications</td>
<td>Hook #65</td>
<td>HIGH</td>
<td>7.5</td>
<td>6.5</td>
<td>7.5</td>
<td>0.35</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
<td>25 yd and 50 yd Reels, Dispenser Packs and Cross-Wound Spools</td>
</tr>
<tr>
<td></td>
<td>Hook #65 &amp; #88</td>
<td>8.5</td>
<td>10.5</td>
<td>6.5</td>
<td>1.20</td>
<td>5/8&quot;, 3/4&quot;, 1&quot;, 1-1/2&quot;, 2&quot;, and 4&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KNITTED NYLON LOOP TAPES TO BE FASTENED WITH WOVEN HOOK TAPES**

<table>
<thead>
<tr>
<th>Loop #3001 - napped finish; high pile; substitute for Loop #1000 where applications require less cycle life</th>
<th>Hook #65</th>
<th>HIGH</th>
<th>12.0</th>
<th>6.5</th>
<th>6.2</th>
<th>1.40</th>
<th>-70°F/-56.7°C to 200°F/93.3°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop #3003 - napped finish; medium height pile; economy; light to moderate duty</td>
<td>Hook #68</td>
<td>MEDIUM</td>
<td>11.2</td>
<td>5.5</td>
<td>5.5</td>
<td>0.80</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
</tr>
<tr>
<td>Loop #3160 - a warp knit with napped finish; low pile</td>
<td>Hook #65</td>
<td>MEDIUM</td>
<td>9.2</td>
<td>6.5</td>
<td>7.5</td>
<td>0.55</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
</tr>
<tr>
<td>Loop #3800 - a circular knit with a napped finish; low pile; economy; low profile loop fabric; ideal for disposable products</td>
<td>Hook #65</td>
<td>MEDIUM</td>
<td>12.0</td>
<td>9.5</td>
<td>8.0</td>
<td>1.00</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
</tr>
<tr>
<td>Loop #3905 - napped finish; low pile; economy; low profile loop fabric; ideal for disposable products</td>
<td>Hook #65</td>
<td>LOW</td>
<td>9.4</td>
<td>8.0</td>
<td>9.0</td>
<td>0.40</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
</tr>
<tr>
<td>Loop #3200 - a warp polyester knit; lightweight - ideal for disposable products</td>
<td>Hook #711</td>
<td>LOW</td>
<td>16.0</td>
<td>20.0</td>
<td>6.0</td>
<td>0.75</td>
<td>-70°F/-56.7°C to 200°F/93.3°C</td>
</tr>
</tbody>
</table>

**MOLED HOOK TAPE**

<table>
<thead>
<tr>
<th>MVA #8 - continuous injection molded hook; used with Loop #1000 and Loop #2000; high strength; low cyclability; engages with open pore cell foams</th>
<th>Woven Nylon Loop #1000</th>
<th>LOW</th>
<th>22.0</th>
<th>11.0</th>
<th>12.0</th>
<th>2.50</th>
<th>-30°F/-44°C to 200°F/93.3°C</th>
<th>25 yd and 500 ft Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woven Nylon Loop #2000</td>
<td>LOW</td>
<td>19.0</td>
<td>8.0</td>
<td>14.0</td>
<td>1.00</td>
<td>-30°F/-44°C to 200°F/93.3°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**VELCRO® BRAND CLOSURE PERFORMANCE**

**PRODUCT STYLE AND SUGGESTED FASTENING USAGE**

- **AVAILABLE FASTENING COMPONENTS**: Cycle Life, Shear Strength, Tension or Latching Effect, Peel Strength, Length-Wise, Width-Wise, Temp. Range Based Upon 1,000 Hours of Exposure, Standard Widths, Standard Put-Ups, Available Colors

- **FEATURES**:
  - **Low**: Low pile; economy; low profile loop fabric; ideal for disposable products.
  - **Medium**: Medium pile; economy; light to moderate duty.
  - **High**: High pile; substitute for Loop #1000 where applications require less cycle life.

- **APPLICATIONS**:
  - **Everyday Fastening Products**: Loop #2000
  - **Disposable Products**: Loop #1000

- **ADHESIVES**:
  - **Activation**: Solvent or heat activated adhesives
  - **Cycle Life**: Low to moderate cycle life

- **COLORS**:
  - **White**, **Black**

- **OPERATING RANGE**:
  - **Temp. Range**: From -20°F to 230°F

- **STANDARD COLORS**
  - **15 standard colors**: with dye-to-match capability

**VELCRO® BRAND 13**

- A rubber-based pressure sensitive adhesive formulated for outdoor applications and moist environments.
- **Maximum operating temp.**: 180°F

**VELCRO® BRAND 14**

- A strong rubber-based, pressure sensitive adhesive.
- **Designed for applications with a temperature operating range from -40°F to 160°F**

**VELCRO® BRAND 15**

- An aggressive, rubber-based pressure sensitive adhesive.
- **Designed for applications with a temperature operating range from -40°F to 120°F**

**VELCRO® BRAND 19**

- A rubber-based, pressure sensitive adhesive formulated for low energy plastics, substrates such as polyethylene & polypropylenes.
- **Temperature operating range**: From -40°F to 183°F

**VELCRO® BRAND 72**

- An acrylic pressure sensitive adhesive for superior bond strength.
- **Temperature operating range**: From -20°F to 225°F

**VELCRO® BRAND 75**

- Water-based acrylic pressure sensitive adhesive designed especially for application to vinyl substrates.
- **Temperature operating range**: From -20°F to 230°F

**FLAME RETARDANT**

- Rubber-based pressure sensitive adhesive.
- **Designed to be coated on flame retardant nylon or polyester hook and loop tapes**
- Meets FAR 25.851, BMS-R-283, and MVSS302 specifications

**SOLVENT OR HEAT ACTIVATED ADBHESIVES**

- **Factory applied pre-coated adhesives**
- **Available on woven nylon VELCRO® brand hook and loop tapes**
- **Ready for immediate bonding to a substrate by various methods of application (e.g., solvent, heat, ultrasonic, dielectric, etc.)**
- **Solvent or heat activated adhesives can be used as a tie coat for a liquid adhesive**
FLAME RETARDANT TAPES
Hook #88 and Loop #1000 are available with F.R. Treatment, tested in accordance with the following methods to meet the respective specifications:
• Federal Aviation Regulations Part 25.853
• Motor Vehicle Safety Standard 302
• Boeing Material Specification 8-285
A Certificate of Compliance is available upon request with each order. If required, Test Reports will be supplied by Velcro USA Inc. at an additional cost per color and per element - please inquire regarding charge.
Flame Retardant product color availability: white, black, beige. In addition, polyester Hook #81 and Loop 9000 are available in an F.R. version.

MILITARY SPECIFICATIONS
A U.S. Military specification concerning VELCRO® brand fastening tapes has been issued. Please refer to AA55126 (in the latest government revision) titled “Fastening Tape, Hook and Loop Synthetic.” VELCRO® brand tapes have been approved by the Defense Logistics Agency for the “Acceptable” Suppliers List (ASL #C-29). When military specification tapes are required, contact Velcro Canada Inc. directly for the latest revisions and availability.

LIMITATIONS - VELCRO® BRAND MOLDED HOOK TAPE (MVA #8)
• Sewing attachment to flexible substrates recommended for indoor application only, due to nylon temperature sensitivity. Six stitches per inch or less are recommended. See Velcro USA’s Sewing Guide for further information.
• Molded nylon hooks are considerably less flexible than woven hooks; molded hook will sharply reduce life of the mating loop if cycled repeatedly.
• Nylon polymer construction will become brittle if exposed to prolonged cold temperatures and/or ultra-violet light (sunlight).

IMPORTANT NOTE TO PURCHASER
All statements, technical advice and recommendations contained herein are based on tests believed to be reliable, but the accuracy thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied: seller’s and manufacturer’s only obligation shall be to replace the quantity of product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

FOR SALES AND TECHNICAL INFORMATION, PLEASE CONTACT OUR CANADIAN SALES OFFICE AT 1-800-683-5276.

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