

# ONE-WRAP® 220 FR fastener

Technical Data Sheet  
April 2023

## PRODUCT DESCRIPTION



The **VELCRO® Brand ONE-WRAP® 220 FR fastener** is a sustainable, easy to reposition, smart bundling solution, glue-free self-engaging back-to-back fastener, widely used for cable management and wire harnessing applications in different markets. This fire retardant version is perfect for plenum spaces, UL-94 V-2 & Zero Halogen for secure environments.

This low profile polypropylene hook with FR polyamide backing was designed to be a strong performance self-engaging fastener.

The **VELCRO® Brand ONE-WRAP® 220 FR fastener** is used in several markets, from industrial to construction, footwear & apparel, automotive accessories, medical garments, and many more.





Available in a black colour, multiple widths, converted items and compatible with many application methods such as sewing and welding.

## PRODUCT CONSTRUCTION

Fastening system	VELCRO® Brand ONE-WRAP® 220 FR fastener
Construction	Extruded hook on knitted fabric
Composition	Polypropylene (extruded hook) Polyamide (knitted fabric)
Thickness	1.05 - 1.65mm
Weight	550 g/m <sup>2</sup> ± 11%
Width available + Variations <sup>1</sup>	<320mm: Nominal ± 1.5mm 320mm: Nominal ± 1%
Colour available	Black

<sup>1</sup> Other lengths capabilities upon request

## PERFORMANCE CHARACTERISTICS<sup>2</sup>





Fastening system	VELCRO® Brand ONE-WRAP® 220 FR fastener
 <b>Peel</b> EN-12242	Minimum: 0.4 N/cm Average: 1.8 N/cm <small>Tested with VELCRO® Brand ONE-WRAP® 220 FR fastener</small>
 <b>Shear</b> EN-13780	Minimum: 7 N/cm <sup>2</sup> Average: 40 N/cm <sup>2</sup> <small>Tested with VELCRO® Brand ONE-WRAP® 220 FR fastener</small>
 <b>Cycle Life</b> EN-1414	50% of the minimum performance 100 cycles <small>Tested with VELCRO® Brand ONE-WRAP® 220 FR fastener</small>
 <b>Tensile Strength</b> EN-ISO 13934-1	Minimum: 120 N/cm Average: 180 N/cm

<sup>2</sup> The average values are only for reference. Suitable performance for a specific intended application should be evaluated by the user.

**PRODUCT COMBINATIONS**

**VELCRO® Brand ONE-WRAP® 220 FR fastener** has been designed to be used as a self-engaging tape.

**SPECIAL CHARACTERISTICS**

Fastening system	VELCRO® Brand ONE-WRAP® 220 FR fastener
 <b>Fire resistance</b> <b>FAR 25.853</b> <b>Vertical Test: 12 s.</b>	Pass
 <b>Fire resistance</b> <b>FMVSS 302</b> <b>Burn rates (mm/min):</b>	Burning (B) – Below 100mm/min
 <b>Fire resistance</b> <b>UL94/ EN 60695-11-10:</b> <b>UL 94 V-2 Material Flame Rating<sup>3</sup></b>	Horizontal: n/a    Vertical: V-2
 <b>Fire resistance</b> <b>ZERO HALOGEN (ZH)</b> <b>UNE EN 60574-1, UNE EN 60754-2 &amp; EN 60684-2</b>	Comply with the standard EN50306-1 Point 3.3 requirements.

<sup>3</sup> Testing per UL94:2006; UNE-EN 60695-11-10:2000/A1:2004 equivalent to EN 60695-11-10:1999/A1:2003 included as a reference. This product is not certified.

**ADDITIONAL PERFORMANCE CHARACTERISTICS**



**Outdoor use**

Since the product is made with polypropylene and polyamide, which both has a known tendency to degrade in UV light, the **VELCRO® Brand ONE-WRAP® 220 FR fastener** are not recommended for direct, prolonged exposure to UV light.



**Resistance to solvents**

The polyamide and polypropylene in this fastening system are resistant to cleaning with some solvents and to accidental exposure to common solvents, except for halogenated solvents, which dissolve it.

Their resistance to fluids used in transport, such as gasoline, motor oil or transmission fluids, has not been tested. We recommend testing the product for its specific application."



**Fire resistance**

The **VELCRO® Brand ONE-WRAP® 220 FR fastener** can be ignited. Please, see information related flammability properties in 'Special Characteristics'.



**Water/Moisture resistance**

Since the product is made with polyamide, this fastening system degrades its mechanical properties when exposed to water/high humidity (>80% RH) for long periods of time. These properties are typically recovered when the product dries.



**Sterilisation**

These products have not been tested for physical sterilisation (autoclave, steam, gamma rays, etc.) or chemical sterilisation (ethylene oxide, hydrogen peroxide, etc.).



**Colour fastness**

No relevant information available.



**Biocompatibility**

The **VELCRO<sup>®</sup> Brand ONE-WRAP<sup>®</sup> 220 FR fastener** has not been tested for biocompatibility.



**Electrostatic discharge**

The **VELCRO<sup>®</sup> Brand ONE-WRAP<sup>®</sup> 220 FR fastener** has not been tested for electrostatic discharge after opening and closing the fastener. These products must first be tested in applications where electrostatic discharge is a concern.



**Seam strength**

No relevant information available.

**SUGGESTED APPLICATIONS**

The **VELCRO<sup>®</sup> Brand ONE-WRAP<sup>®</sup> 220 fastener** can be used in a wide variety of applications such as:

**TRANSPORTATION:**



Automotive interior & accessories, fixing toolboxes or safety kits in the trunk.

**INDUSTRIAL & CONSTRUCTION:**



Data Centres, Electrical, HVAC, Electronics, Original Equipment Manufacturer (OEM) & Maintenance Repair & Operations (MRO) and Consumer applications to bundle cables & cords where reusable, easy to reposition, safe and adjustable bundling solutions are important.

We recommend testing the product before use since the conditions specific to each application may cause differences in performance.

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**COUNTRY OF ORIGIN**

SPAIN

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**REGULATORY ELEMENTS**

For product declarations of conformity on regulatory elements and additional information, contact [sales@solbi.es](mailto:sales@solbi.es)

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**PRODUCT USE**

The information, statements and comments contained within this document are based on our experience and testing and are believed to be accurate. However, because there are many factors involved in specific applications that can impact end use and performance, product users should always test the product for its ability to meet the requirements of their specific use and method of application.

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**LIMITED WARRANTY**

Velcro Companies<sup>(\*)</sup> warrants that all of its products will substantially comply with its written specifications at the time of shipment. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. The product user is responsible for determining whether the product is fit and suitable for the intended application. If the product does not meet specifications as warranted, we will, at our option, repair or replace the product, or credit or refund the purchase price. The foregoing constitutes the user's sole remedy and our sole obligation hereunder.

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**LIMITATION OF LIABILITY**

To the maximum extent permitted under applicable law, our liability for any losses or damages relating to use of the product shall not exceed the purchase price for such product, regardless of whether such losses or damages are direct, indirect, special, incidental or consequential, and regardless of the legal theory asserted, including, but not limited to, warranty, contract, negligence or strict liability.

Given the diversity of our products, we recommend that our customers verify that the product satisfies the requirements of their application. The customer is responsible for the application and use of the product.