



VELCRO® Brand

HI-TEMP™ Hook 82 & Loop 5000

Technical Data Sheet August 2022

5000

5000

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The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 fastener system is a resistant and durable textile hook and loop suitable for those applications where high temperature, fire & chemical resistance and electrical insulation are important in demanding and aging performance environments. It is woven from 100% polyphenylene sulfide yarn and meets different Flame Retardancy standards.

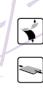
The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 is suitable for a wide range of applications in various demanding industries such as aviation, automotive, industrial, and many others.

Available in natural colour, multiple widths, converted items and compatible with application methods such as sewing.

PRODUCT CONSTRUCTION

Fastening system	VELCRO® Brand HI-TEMP	™ Hook 82 & Loop 5000
Construction	Woven Textile Tape	
Composition	Polyphenylene sulfide	
Thickness	Sew On - Mated Avg. = 3.2mm - 0.126in	
Weight (Mass per Unit Length)	Hook 82 Sew On Avg. = 408 g/m ²	Loop 5000 Sew On Avg. = 423 g/m ²
	5.8 ^e -4 psi	6.0 ^e - 4 psi
Widths available*	5.8°-4 psi 12.5, 20, 25, 50 mm ± 1.6 n 0.5, 0.75, 1, 2 in ± 0.06 in	

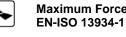
PERFORMANCE CHARACTERISTICS



	Fastening system	VELCRO [®] Brand HI-TEMP™Hook 82 & Loop 500
Ī	Closure Peel Strength EN-12242	Minimum: 1.3 N/cm - 0.74 lbf/in Average: 1.6 N/cm* - 0.91 lbf/in Tested with VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000
	Closure Shear Strength EN-13780	Minimum: 8 N/cm ² - 11.6 psi Average: 11.4 N/cm ^{2*} - 16.5 psi



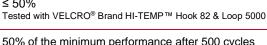
Average: 11.4 N/cm² - 16.5 psi
Tested with VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000



Minimum Average
Hook: 200 N - 45 lbf Hook: 571 N - 128 lbf
Loop: 180 N - 41 lbf Loop: 443 N - 100 lbf









Cycle Life	50% of the minimum performance after 500 cycle
EN-1414	Tested with VELCRO® Brand HI-TEMP™ Hook 82 & Loop

^{*} The average values are only for reference. Suitable performance for a specific intended application should be evaluated by the user.

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Hook 82 & Loop 5000

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^{*} Other widths capabilities upon request





PRODUCT COMBINATIONS

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 fastener has been designed to be in combination with each other and be used with the VELCRO® Brand adhesives range.

SPECIAL CHARACTERISTICS*

		A
	Fastening system	VELCRO [®] Brand HI-TEMP™ Hook 82 & Loop 5000
×	Flame Retardancy AITM2-0053	PASS
	Flammability	FAR 25.856 (b)
M	12 Second Vertical	FAR 25.853
	Flammability	FAR 25.856 (a)
	60 Second Vertical	FAR 25.853
	Temperature Resistance ISO 17493	Product functional after 5 min at 260°C
X	Electrostatic properties EN 1149-3:2004: III	Inductive charging method to determine charge dissipation: NO PASS
X	Flammability of Plastic Materials* UL94/ EN 60695-11-10	Vertical 0 Rating (V-0)*

*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 currently certified.

ADDITIONAL PERFORMANCE **CHARACTERISTICS**



Outdoor use

VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 fasteners have not been tested for resistance to UV light. Polyphenylene sulfide material will become brittle and yellow with exposure to UV light. The product should be tested in use for a specific application.



Resistance to solvents

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 should be tested in use for a specific application and has not been tested for resistance to transportation fluids such as gasoline, motor oils, and transmission fluids.



Fire resistance

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 has higher levels of flame retardancy versus standard fire retardant hook and loop fastener.

Please, see related flammability properties in 'Special Characteristics' sections.



Water/Moisture resistance

Polyphenylene sulfide material has low affinity for water absorption for that reason performance should be stable when it is exposed to water/high humidity (> 80% H.R.) for extended lengths of times.



Sterilisation

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

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etc.).



Colour fastness

No relevant information available.



Biocompatibility

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 has not been tested for biocompatibility.



Electrostatic discharge

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 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

The VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 can be applied to several substrates by sewing. A square stitch should be used when possible, but all common stitches also offer adequate strength. The choice of thread will depend on the application and substrate. Product is intended for use on thermoacoustic insulation applications and has not been designed or evaluated for performance in clothing or durable high use textile constructions such as firefighter turnout gear.

SUGGESTED APPLICATIONS

VELCRO® Brand HI-TEMP™ Hook 82 & Loop 5000 fasteners may be used.



INDUSTRIAL:

Thermal insulation mattresses in different industries, electronic sensors, industrial high temperature equipment, HVAC installations.



TRANSPORTATION:

Aircraft seating or interior composite structured, maintenance and repair of aircraft thermo-acoustic insulation systems.

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	United States
REGULATORY ELEMENTS	For product declarations of conformity on regulatory elements and additional information, contact productcompliance@velcro.com .
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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(*) Velcro Companies includes all the partner companies involved in the development, manufacture or sale of the products.	

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