

VELCRO® Brand

Adhesives



PRESSURE SENSITIVE • HEAT OR SOLVENT ACTIVATED



GENERAL RECOMMENDATIONS AND WARNINGS



Preparation of the VELCRO® Brand Tapes

Pointed corners on VELCRO® Brand Hook and Loop Tapes are sometimes detrimental to a good bond. We recommend nipping or rounding each corner of the VELCRO® Brand Tape to eliminate this vulnerable area.



Your plant conditions

Your work area must be clean and free from dirt and dust in the air. It is also essential to have a well ventilated area when using solvent activated adhesives. Ideal room temperatures should be 18 °C to 20 °C, and relative humidity 40% to 60% (the lower the humidity, the better the bond).

If the adhesive is applied below the recommended application temperatures, it loses tack. Once adhesive or self-adhesive tape is applied, press it firmly into contact with the substrate to smooth tape and to avoid air bubbles.



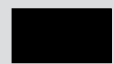
Surface preparation

It is mandatory that all surfaces should be thoroughly cleaned and dried. All cleaning agents should be tested prior to use to ensure cleaning agent will have no adverse effects on the substrate.



Porous substrate

This type of surface is one that requires a primer or sealer to provide a suitable bonding area. This could consist of a coating or a liquid adhesive. Allow to dry prior to final adhesive procedure.



Non-porous substrate

This would be suitable for solvent activation of a VELCRO® Brand pre-coated adhesive backing tape. Better adhesion can be obtained when used with a liquid adhesive.



Smooth surfaces

Superior bonding can be achieved by cleaning or roughing up a smooth surface.



Limitations

Not recommended for use in water or on plastics with high concentrations of plasticizers. Adhesives are not washable or dry cleanable.



Suitability

Before using adhesives for production user should test the adhesive to determine the suitability of the product for the intended use.

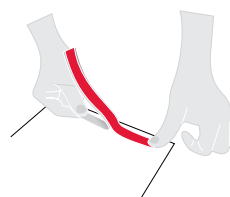
VELCRO® Brand

Pressure Sensitive Adhesives

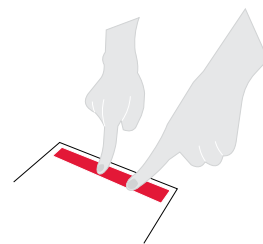
PRESSURE SENSITIVE ADHESIVES ARE POPULAR BECAUSE OF THEIR EASE OF APPLICATION - SIMPLY REMOVE THE RELEASE LINER AND PRESS THE TAPE IN PLACE



Peel away



Place



Press

- Rubber-based**

Rubber-based pressure sensitive adhesives have good adhesion to low surface energy substrates. They should be used indoors, at room temperature.

- Water-based**


Acrylic pressure sensitive adhesives offer good shear strength, environmental resistance, and have good adhesion to most metal and medium/high surface energy plastics.



RUBBER-BASED



WATER-BASED

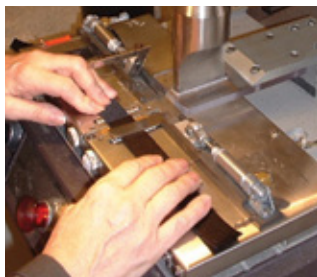
CHARACTERISTICS	Adhesive PS-14	Fire retardant Adhesive PS-15 	Adhesive PS-19	Adhesive PS-30	Adhesive PS-51	Adhesive PS-18
BASE MATERIAL	Rubber resin	Rubber block copolymer	Rubber block copolymer	Rubber block copolymer	Rubber resin	Water based acrylic polymer
TEMPERATURE RANGE	-15 °C to +90 °C	-15 °C to +60 °C	-30 °C to +70 °C	-15 °C to +60 °C	-15 °C to +90 °C	-20°C to +120°C
PEEL AVERAGE (curing time: 24 hours) Method: FTM 1 (FINAT*)	17 N/cm	20 N/cm	18 N/cm	20 N/cm	24 N/cm	22 N/cm
SOFTENING POINT Method: D-816 (ASTM**)	≥90 °C	≥60 °C	≥80 °C	≥60 °C	≥90 °C	≥120 °C
STATIC SHEAR Method: FTM 8 (FINAT*)	≥7 days	≥7 days	≥7 days	≥7 days	≥7 days	≥3 days
TACK	Medium/Low	Excellent	Medium	Excellent	Medium	High
APPLICATION METHOD	Pressure	Pressure	Pressure	Pressure	Pressure	Pressure
APPLICATION	General except PVC	General except PVC	General except PVC	General except PVC	General except PVC	General except polyolefins
SPECIAL FEATURES	High cohesion under temperature	Fire retardant Meets F.A.R. 25.853 and MVSS302	Excellent performance onto polyolefins	Performs well onto polyolefins	High peel strength Performs well on uneven or rough surfaces	High temperature resistance

* FINAT: Fédération Internationale des Fabricants et Transformateurs d'Adhésifs et Thermocollants.

** ASTM: American Society for Testing and Materials.

Heat or Solvent Activated Adhesives

HEAT AND SOLVENT ACTIVATED ADHESIVES PROVIDE THE STRONGEST BOND TO THE TAPE ITSELF AND CAN BE MADE READY FOR INSTANT BONDING BY MANY METHODS OF APPLICATION



- Heat or Solvent**

Heat or solvent activated adhesives are recommended for applications where a more permanent bond is desired.

Dry to the touch, these adhesives become tacky upon activation using ultrasonics, high frequency welding, ironing, hot air application or solvents.

 **HEAT OR SOLVENT ACTIVATED**

CHARACTERISTICS	Adhesive PC-20	Adhesive PC-28	Fabric fusion adhesive PS-47
BASE MATERIAL	Nitrile rubber	Nitrile	Urethane
COLOUR	Red - brown	Colourless	Clear - pale yellow
TEMPERATURE RANGE	-20 °C to +80 °C	-15 °C to +100 °C	-30 °C to +160 °C
APPLICATION METHOD (Reactivation)	Heat: High frequency, hot air	Heat: Ultrasonics, high frequency, hot air	Heat: Ironing
	Solvent: Acetone, M.E.K.*	Solvent: Acetone, M.E.K.*	
APPLICATION	General	General. Excellent on PVC	Fabrics

* M.E.K.: Methyl ethyl ketone in 80% of purity

REACTIVATION METHODS

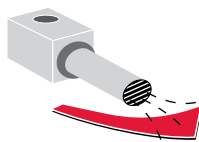
Mechanical



Ultrasonics



High frequency



Hot air



Ironing

Chemical



Solvent (acetone, M.E.K.)

RECOMMENDED SUBSTRATES

SUBSTRATES	PS-14	PS-15	PS-18	PS-19	PS-30	PS-51	PC-20	PC-28	PS-47
ALUMINIUM ANODISED	+	+	+	+	+	+	-	-	-
GLASS	+	+	+	+	+	+	+	+	-
PAINTED WALLBOARD	+	+	+	+	+	+	+	+	-
PLYWOOD	+	+	+	+	+	+	+	+	-
POLYESTER	+	+	+	+	+	+	+	+	-
POLYETHYLENE	=	+	-	+	+	=	=	=	-
POLYPROPYLENE	=	+	-	+	+	=	=	=	-
STAINLESS STEEL	+	+	+	+	+	+	+	+	-
VINYL	-	-	+	-	-	-	+	+	-
FORMICA (POLISHED SIDE)	+	+	+	+	+	+	-	-	-
CARDBOARD	=	=	+	=	=	=	=	=	-
POLYACRYLIC	+	+	+	+	+	+	+	+	-
FABRICS	=	=	=	=	=	=	+	+	+

- Not available = Good + Recommended

RECOMMENDED TAPES

TAPES	PS-14	PS-15	PS-18	PS-19	PS-30	PS-51	PC-20	PC-28	PS-47
VELCRO® Brand Hook 088 VELCRO® Brand Loop 001	+	+	+	+	+	+	+	+	+
VEL-LOC® (Mushrooms hooks)	+	+	+	+	+	+	+	+	-
VELCRO® Brand Velours	+	+	-	+	+	+	-	-	-
VELCRO® Brand Plastic Hooks (Polypropylene & Polyethylene)	=	=	-	+	=	=	-	-	-
VELCRO® Brand Plastic Hooks (Polyamide 12)	+	+	+	+	+	+	-	-	-
VELCRO® Brand Plastic Hooks (Polyamide 6.6)	+	+	+	+	+	+	+	+	-

- Not available = Good + Recommended

NOTE: All the data indicated in this brochure are for reference only. Please, contact us for more detailed information.



THE VELCRO COMPANIES ARE WORLDWIDE LEADERS IN FASTENING SYSTEMS OFFERING A WIDE RANGE OF SOLUTIONS, FROM STANDARD HOOK AND LOOP TO COMPLETE FINISHED PRODUCTS.

50 YEARS OF EXPERIENCE: WE ARE PROUD OF OUR HERITAGE IN INNOVATION HAVING OVER 300 ACTIVE PATENTS TO OFFER BETTER SOLUTIONS TO SATISFY OUR CUSTOMERS' NEEDS.



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THE VELCRO COMPANIES IN THE WORLD



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-  Manufacturing facilities
-  Research & Development centres