WARMZONE
Premier Radiant Heating

3M ™ VHB ™ 4951 PADS AND SB-190 ADHESIVE

Double Sided Acrylic Foam Pads And Roof Clip Adhesive



VHB PAD



SB-190

DESCRIPTION

3M™ VHB ™ 4951 PAD FEATURES

- For Metal To Metal Materials Only
- High Tensile Strength
- High Shear And Peel Adhesion
- Conformability
- 32°F (0°C) Minimum Application Temperature

3M™ VHB ™ 4951 Pads utilizes high performance adhesives which have excellent long-term holding power. The peel adhesion and tensile holding power of this pad is significantly higher than typical pressure sensitive pads. VHB pads are for adhering metal to metal surfaces only.

NOTE: VHB pads CANNOT be used on asphalt shingles, coated metals or rubber membrane materials.

ATTENTION: Do not use VHB pads with DT-AS-50 clips.

SB-190 ADHESIVE

Roof clip adhesive for metal and asphalt shingle roofs. One 10oz. tube will adhere 50-75 clips. SB-190 cannot be used with copper clips or on copper surfaces. Minimum application temperature is 50°F (10°C).

NOTE: SB-190 CANNOT be used on rubber membrane.

SPECIFICATIONS FOR VHB PAD

Length:	2" (6cm)
Width:	3" (8cm)
Thickness:	.0312" (.079cm)
Bond Strength:	100% at 70°F (21°C) in 72 hours
Minimum Application Temperature:	32°F (0°C)

SPECIFICATIONS SB-190

Bond Strength:	100% at 70°F (21°C) in 72 hours
Minimum Application Temperature:	50°F (10°C)

APPLICATION 3M ™ VHB ™ 4951 PADS

The VHB pads are to be used with The RM-25-AL clips or other non coated metal clips, not with the DT-AS-50 clips.

SURFACE PREPARATION

A pad location must be clean and dry. Typical surface cleaning solvents are a 50/50 isopropyl alcohol (rubbing alcohol) and water mixture. Scrubbing the surfaces with a solvent saturated mild abrasive pad (i.e. Scotchbrite brand surface preparation products) and then wiping the surface clean provides good results.

Some materials; i.e. copper or brass, will require coating with lacquer or varnish to prevent oxidation of the surface.

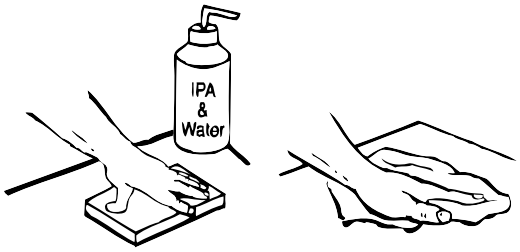
VHB pads cannot be used on asphalt shingles or rubber membrane materials.

RUB DOWN PRESSURE

Bond Strength is dependent upon the amount of adhesive-to-surface contact development. Firm application pressure develops better adhesive contact and thus improves bond strength. Apply pad to the first surface and press down with very firm pressure. Then apply the second surface and provide very firm pressure to the entire bond line.

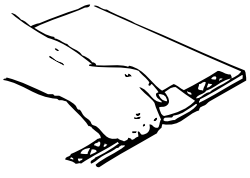
DWELL TIME

After application, the bond strength increases and approaches the ultimate bond strength after 72 hours at 70°F (21°C). In some cases bond strength can be increased and ultimate bond strength can be achieved more quickly by exposure of the bond to elevated temperatures; i.e. 150°F (66°C) for 1 hour. This provides quicker and more thorough adhesive wetout onto the surface.

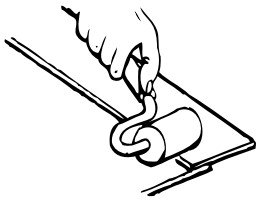


Step A. Solvent Wipe.

Step B. Wipe Dry.



Step C. Squeegee onto Surface.

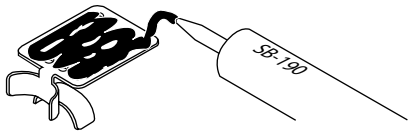


Step D. Roll finished Joint

Detail 1. Surface preparation and application instructions prior to installing VHB Pad.

APPLICATION OF SB-190

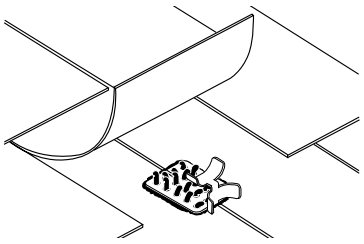
1. Apply 0.2oz. of SB-190 to the back of DT-AS-50 roof clip. Refer to Detail 1. SB-190 minimum application temperature is 50°F (10°C). NOTE: SB-190 can not be used over rubber membrane.



Detail 1. Apply SB-190 to back of clip.

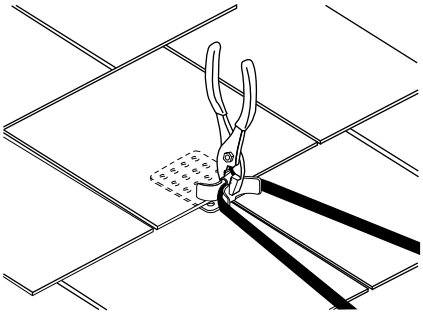
2. Orient the DT-AS-50 roof clip as needed. Press down to ensure SB-190 adhesive flows through holes. Do not trim back SB-190 adhesive beads because they help hold the clip down. Refer to Detail 2.

   Allow 24 hours for SB-190 adhesive to cure before installing deicing cable.



Detail 2. Press cable to roof surface.
Allow 24 hours before installing deicing cable.

3. Install deicing cable and use pliers to close clamps, ensuring not to damage cable. Refer to Detail 3.



Detail 3. Close clamps with pliers.