

General recommendations for the installation of the PIPE VCI Disc to provide good bonding of the VCI Disc to the pipe end cap. Recommendations are given based on substrate material of the pipe end cap being polyolefin (PE or PP) material.

This guide is written with specific reference to the contents of 3M Technical Bulletin Surface Preparation for 3M™ VHB™ Tape Applications, <https://multimedia.3m.com/mws/media/660190/vhbtm-tape-surface-preparation-technical-bulletin.pdf?&fn=87015.pdf>

Ensure surface to be bonded to is dry and clean. Dependant on condition cleaning can be : 1) Dry wipe with a clean cloth to remove surface dust 2) For soiled surfaces it is recommended to clean with a water isopropyl alcohol mix (approximately 50% to 70% IPA) 3) Heavy contaminated surfaces may require a degreaser or solvent-based cleaner to remove heavy oil or grease from a surface and should be followed by cleaning with IPA/water	
Apply adhesion promoter primer to the surface to be bonded (pipe end cap) – 3M Tape Primer 94 or 3M VHB Tape Universal Primer UV are recommended. – Alternatively use Corona treatment to prepare the surface of PP and PE end caps to increase surface Dyne level	

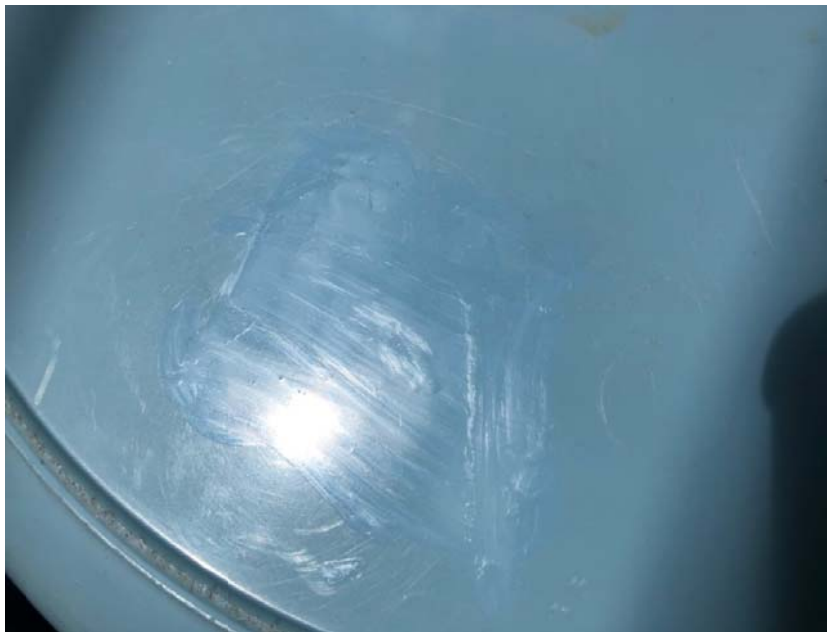
Shake Primer well before using.

Apply a thin uniform coating to the bonding surface using the minimum amount that will fully coat the surface. Application by brush, roller or similar.



Allow primer to dry thoroughly before applying tape (30-90 seconds) if required a small fan can be used. Visually assess surface for dryness. **Note:** Tape will not adhere to wet primer.

The tape should be applied or the bond made to the prepared surface within 8 hours of primer application. Be sure the primed surface remains free from contaminants prior to applying the tape.



Using the PIPE VCI Installation holder device.

Place PIPE VCI disc face down (membrane side down) in the PIPE VCI installation device.



Peel of backing film from the 3M adhesive pad.

Immediately line up the area of end cap prepared with surface primer and press the end cap on to the adhesive pad of the PIPE VCI Disc.

The conformable foam will provide good contact between substrates even when they are slightly mismatched, however it will not fill gaps between the materials



Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Very firm application pressure develops better adhesive contact and helps improve bond strength.

Good surface contact can be attained by applying pressure to insure that the tape experiences minimum 15 psi (100 kPa) pressure for a minimum of 5 seconds

It may be necessary to exert significant direct pressure on the bonding area.

The PIPE VCI Disc installation device is constructed to support the pipe VCI Disc and allow for this force to be applied ensuring good bonding without damaging the PIPE VCI Disc.



After application, the bond strength will increase as the adhesive flows onto the surface (also referred to as “wet out”).

At room temperature, approximately 50% of the ultimate strength will be achieved after 20 minutes, 90% after 24 hours and 100% after 72 hours.

Handling Strength is achieved immediately after application of pressure to the bonded components.



Typical Bond Build Over Time

