Application Recommendations for 3M™ Tabbing Tapes

5081, 5082, 5300 and 5699

Description
3M™ Tabbing Tapes are designed for use on 3M™ Acrylic Foam Tape liners.
Due to multiple applications, it should be pointed out that their advantage lies on the fast application to the tape liner, and the easy liner removal on the application process, after applying a tab.

Tabbing Tapes
There are two types of tabs: self-adhesive and heat activated.

For Acrylic Foam Tapes with non-siliconized film liner, it is recommended to use the self-adhesive Tabbing Tape 5300. For both-sides-siliconized liner, it is recommended to use Tabbing Tape 5699.

Heat-activated Tabbing Tapes are following products: 5081 and 5082. These products can be used with all non-siliconized tape liners. For siliconized liners, the silicon layer must mechanically be removed before applying the heat-activated Tabbing Tape. For both processes, 3M applicators are recommended.

Surface Preparation
Before using 3M™ products, make sure that the surface is clean and dry, free from dirt particles, oil, silicon layers or other contamination.

Surface Cleaning
For surface cleaning you can use following agents:
- Standard (Dust, Fingerprints, etc.): Isopropanole / Water (50% / 50%) or 3M™ HPW 2011 (High Performance Wipe)
- Oily surfaces or surfaces containing release agents: Methyl Ethyl Ketone (MEK)
- Wax Residuals: Petroleum Ether (n-Heptane…)
- Rubber/EPDM Cleaning:

Heptane; 3M™ Adhesive Cleaner

The use of the name cleaning agents above depends on the surface material to be cleaned.

When using solvents and chemical agents, please do follow the safety recommendations from the supplier.

Use clean, lint-free, one-use towels for surface cleaning. You can reach good cleaning results by using a 3M™ High Performance Wipe (HPW) 2011.
Application on clean surfaces should happen short ly after cleaning, in order to avoid dirt collection (dust/ fingerprints)
Use of Self-Adhesive Tabbing Tapes

3M™ self-adhesive Tabs 5300 are designed for non-siliconized polyethylene liners.

The Tabbing Tape should be adjusted to the application process. (Tab length and width / finger lift)
The type of load and the tool to be used to remove the liner should also be adjusted to the process.
Please make sure that the adhesive side of the tab shows complete wet ability all along the liner.

To remove the liner safely, the tabbing tape should be removed with an angle of less than 90° in the direction of the liner.

When using Acrylic Plus Tape, the tab adhesive should not come in contact with the tape adhesive. Should this happen there might be difficulties with the liner in the further processing.
For silicone liners the Tabbing Tape 5699 is recommended.

Exact position of tabbing tape is important for correct application. Therefore stretching of tape must be prevented, or shrinkage of liner will affect process. Wrong tabbing position will interrupt relevant liner release. Nevertheless tabbing tape can be peeled of substrate by positioning failures.

Recommendations for Heat-Activated Tabs

3M™ Heat-Activated Tabbing Tapes (5081 blue, 5082 transparent) are thermally applied to the liner.

The sealing temperature and sealing time must be adjusted according to application and equipment used. Under lab conditions the temperature range 130°C to 155°C is used for about 0.8-1.2 seconds with a pressure of approximately 30N/cm².

Please make sure to adhere the matt side to the liner side (tape liner)
A correct application is such when the tab cannot be removed without destruction from the tape.

Mayor parameters for accurate liner release are the position of fixation. Complete heat active tab must be set.
The tabbing tape should be removed in the direction of the adhesive tape with an angle of less than 90°.

Possible applications of heat active tabbing tapes are also bondage of more than one Acrylic Foam or Plus Tapes. This could ensure continuous and solid tape application.

Silicone of liners must be mechanically removed before heat activation and fixation.
Equipment
Heat Tabber and Heat Tabber Abrader.

The Heat Tabber is a proven system for sealing the heat-activated tab to non-siliconized liner.

In this step heated plunger must be pressed on area where tab and liner have to be connected. Heat flows through the tab, so that tab and liner would be welded. Fixation parameter will be correct, when tabbing tape gets solid bond to liner.

The Heat Tabber Abrader is specially designed for use with siliconized liner. An abrading process is built-in in order to remove the silicon layer.

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