

# **Reusable Silicone Tape**

Reusable Silicone Tape is a single or a double-side silicone tape coated with reusable silicone resin and heat resistive silicone adhesive. It is specifically designed to temporary fix FPC or tiny components to carrier jig during SMT process. An easy-to-clean Reusable Silicone Tape is more cost-effective due to reuse even in high temperature environments.

## **Special Features**

- Stable adhesion property about 500 cycles in SMT process
- Excellent dimensional stability at 260°C
- · Precise surface mounting
- Adhesion can be restored by easy cleaning
- Adhesion level of silicone compound can be selected
- Superior surface flatness allows whole area fixation

## **Applications**

- SMT process of Flexible PCB
- SMT process of Thin rigid PCB
- Carrier of LCD assembly process
- Flip chip mounting process
- Various temporary fixing application



#### 1) Technical Data

| Technical Data              |                   |  |   |                              |                |
|-----------------------------|-------------------|--|---|------------------------------|----------------|
| Product Type                | Thickness<br>(mm) | 180°C Peel Adhesion on Polyimide (at room temperature, N/25mm) | Holding Power<br>(PSA side, 2.2psi<br>@260°C x 2hr) | Tensile Strength<br>(N/50mm) | Туре           |
| Test Method                 | JIS Z 0237        | AMMK Self Method   | ASTM D3654  | ASTM D3759                   | -              |
| Silicone Tape<br>F20HB, HBP | 0.2 ± 0.015       | 0.4 ± 0.05   | No creep, AF  | >500                         | Sheet,<br>Roll |
| Silicone Tape<br>F20B, BP   | 0.2 ± 0.015       | 0.3 ± 0.05   | No creep, AF  | >500                         |                |
| Silicone Tape<br>F20LB, LBP | 0.2 ± 0.015       | 0.1 ± 0.05   | No creep, AF  | >500                         |                |
| Silicone Tape<br>P20MB      | 0.2 ± 0.015       | 0.2 ± 0.05   | No creep, AF  | >200                         |                |
| Silicone Tape<br>P10H2B     | 0.1 ± 0.015       | 1.3 ± 0.2  | No creep, AF  | >200                         |                |

<sup>✓</sup> Please contact sales manager for more various reusable silicone tape product

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#### 2) How to apply in your SMT process

- 1. Clean up the surface of carrier boards by alcohol
- 2. Pre-ageing Durostone or Aluminum carrier
- 3. Peel off the release liner of adhesive side with care
- 4. Attach the adhesive side of silicone tape on boards
- 5. Peel off the release liner of silicone side with care
- 6. Put the FPC on the silicone surface

### 3) Cleaning Cycle

• To extend lifetime of silicone tape, appropriate surface cleaning is recommended when tack is not enough to hold FPCB

#### 4) Cleaning Method

• It is recommended to use cleaning roller to recover adhesion without any cleaning age



• Or you can clean the surface using soft cloth with ethyl alcohol; ketones such as acetone, MEK or hydrocarbon solvents such as toluene, xylene are not allowed for cleaning agent

#### 5) Converting

•When you cut the Reusable silicone tape for your size, use cutting machines including a fodder chopper or die-cutting M/C for sharp edge trim

#### 6) Carrier Board Materials

- If you use Durostone or Aluminum board, then you need to do pre-aging of the Durostone or Aluminum board itself before applying silicone tape to remove entrapped air in the board
- Other material board do not need to do pre-aging

#### How to do pre-ageing

- Pre-aging at 250°C for mere than 3minutes or passing through SMT reflow chamber one cycle
- For Durostone board, attach silicone tape on the Durostone within 2 hours after pre-aging
- For Aluminum board, attach silicone tape before the Aluminum board cools down (about 40°C)
- This pre-aging process will help to prevent air bubble problems in reflow process

## 7) Storage Conditions

- Be sure that storage condition is very important to perform extended life time [Standard conditions (23±2°C, 50±RH] in original packing is the best]
- Keep away the products from direct UV exposure and oils or any contaminations