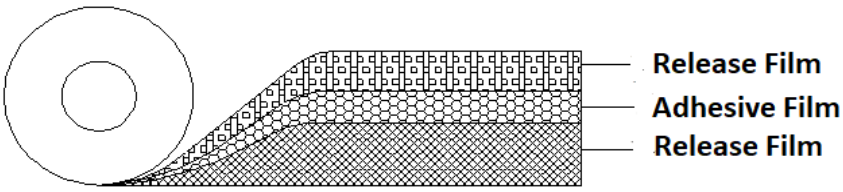
# DH-DBF Thermosetting Double-Sided Adhesive Film

## 1. Product Information

DH-DBF Adhesive Film is a **thermosetting, double-sided adhesive film** formulated from a blend of **aliphatic and aromatic acid esters combined with epoxy resin**. It provides excellent adhesion to both metals and a wide range of non-metallic materials. The film has a faint bluish color, contains no carrier substrate, and is protected on both sides with release liners for easy handling and removal.

The film is **non-tacky at room temperature**. Bonding is activated by heat, with **full curing achieved through combined heating and pressure during secondary assembly**.




## 2. Product Features

- Excellent bonding strength
- High reliability under high-temperature and high-humidity conditions
- Strong chemical resistance with excellent **electrical and long-term reliability performance**
- Exceptional flexibility
- Room-temperature storage
- Compliant with RoHS and halogen-free environmental standards

## 3. Typical Values

| No. | Item | Unit | Value | Test Method |
|---|---|---|---|---|
| 1 | Thickness | μm | 10–50 | — |
| 2 | Peel Strength | N/mm | ≥1.5 | — |
| 3 | Heat Resistance | ℃ | 300 (short-term) | — |
| 4 | Dielectric Constant (6.5 GHz) | — | 2. 575 | SJ/T10142-1991 |
| 5 | Dissipation Factor (6.5 GHz) | — | 0.003 | SJ/T10142-1991 |
| 6 | Surface Resistivity | Ω | 2.41E+13 | ASTM D257 |
| 7 | Glass Transition Temperature (Tg, TMA) | ℃ | -31.55 | TMA |
| 8 | Dielectric Strength | kV/mm | 128 | ASTM D149 |
| 9 | Thermal Decomposition (1% wt. loss) | ℃ | 320.25 | TGA |

## 4. Application Guidelines

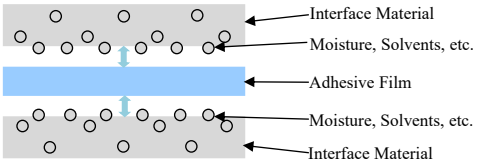
**Film Transfer:**

Remove the release liner and laminate the adhesive film onto the substrate at **120–150 °C**, ensuring uniform contact and adhesion.

**Secondary Assembly:**

Apply heat at **120–200 °C under pressure** to achieve initial adhesion and partial curing.

**Final curing:** 150–180 °C for ≤30 minutes**.**




Once the bonding material absorbs moisture, it becomes sealed after lamination, making it difficult for the moisture to escape.

◆ Depending on substrate size and circuit pattern, a preliminary lamination trial is recommended to evaluate the need for vent holes or other air-release measures. Any issues related to trapped air or residual bubbles should be resolved prior to full-scale production.

**Storage**

Store in a sealed package in a dry, non-corrosive indoor environment with a temperature below 30 °C and relative humidity below 50%. Avoid direct sunlight. The product has a **shelf life of 8 months from the date of manufacture when stored under specified conditions**.