HOT MELT ADHESIVE

TPU Hot Melt Film

UF-2106

UF-2106 is a thermoplastic polyurethane hot melt adhesive film supplied on a release liner, produced by cast extrusion from polyester-based TPU elastomer. At room temperature it is a dry, tack-free solid film; heated above its softening point of about 95°C, it activates under heat and pressure and bonds firmly to the substrate, setting on cooling as the laminate cools. The film delivers high bond strength, outstanding elasticity, excellent water resistance and good low-temperature flexibility, with a wide, forgiving pressing window of 110–140°C. It is the workhorse format for scalable heat-press lamination of textile fabrics, shoe materials, automotive interiors and many other flexible substrates.

KEY FEATURES

- Supplied on a release liner — keeps the film clean and protected until pressing; solvent-free lamination
- High bond strength with outstanding elasticity — the bond stretches with elastic fabrics instead of cracking
- Proven wash resistance — no delamination and no blistering after 50 domestic wash cycles at 40°C
- Waterproof and non-permeable — doubles as a sealing layer in waterproof constructions
- Low softening point (approx. 95°C) — moderate pressing temperatures protect heat-sensitive fabrics
- Wide processing window (110–140°C) — tolerant of thickness and equipment variation on production lines

TECHNICAL SPECIFICATIONS

Property	Value
Main component	Polyester-based thermoplastic polyurethane (TPU)
Appearance	Milky translucent
Thickness	0.05-0.30 mm (standard 0.05 / 0.08 / 0.10 / 0.12 / 0.15 mm, customizable)
Width	20-1520 mm, slitting on request
Roll length	100 m / 200 m, customizable
Density	1.18-1.22 g/cm³ (23°C)
Hardness	Shore A 71-73
Softening point	approx. 95°C (ring and ball)
Melt flow rate	10-25 g/10 min (150°C, 2.16 kg)
Wash resistance	No delamination, no blistering (40°C, 50 home laundering cycles)
Packaging	PE-sealed rolls in cartons or on pallets

RECOMMENDED PROCESSING CONDITIONS

Parameter	Value
Pressing temperature	110-140°C (adjust to fabric and film thickness)

Parameter	Value
Pressure	0.2-0.4 MPa (flat press or continuous laminator)
Pressing time	10-20 s
Open time	approx. 12 min (surface tack reference)
Cooling	Natural cooling to room temperature before handling

TYPICAL APPLICATIONS

UF-2106 bonds wherever flexible materials must be joined strongly, thinly and invisibly. In apparel, it laminates knitted fabrics, polyester and fleece for outerwear and sportswear. In footwear, it bonds mesh with lining fabrics and builds flyknit uppers. Beyond garments and shoes, it serves automotive interiors, bags and furniture fabrics, and bonds leather, wood, and plastics such as TPU, PVC, PET and PA. It is also used in reflective materials and filter media, and in any double-layer or multi-layer lamination of flexible substrates where a glue line must stay thin, soft and washable

PACKAGING AND STORAGE

- Supplied in standard export packaging; roll width, length and liner options confirmed on order.
- Store in a dry, ventilated place below 30 °C, away from direct sunlight, moisture and ignition sources.
- Shelf life: 12 months in unopened original packaging. Reseal opened rolls and use them within the period stated above.

> **Handling note:** Hot melt adhesives are applied molten. Use a suitable dispenser or laminator with accurate temperature control and keep hands clear of the melt and heated surfaces.

The values above are typical test results obtained under standard laboratory conditions and are provided for reference in product selection. They do not constitute a specification or warranty of performance in a particular application, because bonding results depend on substrate, equipment, line speed and ambient conditions. We recommend a trial run on your own production line before commercial use. Shanghai United Industry Co., Ltd reserves the right to revise this document without notice.

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