

Adhesive & Resin Blocking, Conformable Release Film



For lamination of Coverlays and Flexible Circuits

PACOFLEX•ULTRA™ is the ultimate conformable release film for scrap-free applications for the lamination of cover layers and flexible circuits. It is fine-tuned to reduce excessive “squeeze-out” of adhesive into pad areas and will also effectively

WHY DOES PACOFLEX•ULTRA WORK SO WELL?

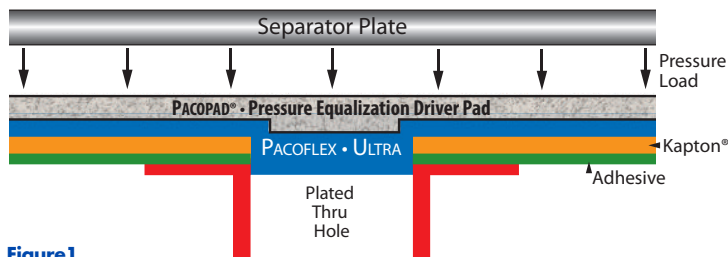


Figure 1

block adhesive or resin flow into any other unwanted areas. When exposed to heat and pressure, **PACOFLEX•ULTRA** softens into the PACOPAD [see figure 1] and together they become dynamic “z-axis conformable drivers” which provide superior sidewall conformance with the circuitized base laminate and other intricate flex part topographies.

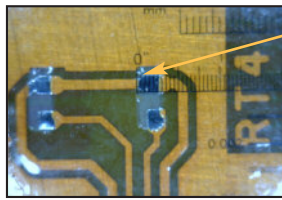
PACOFLEX•ULTRA is a two-ply polymeric structure, engineered to a 0.006” (156 μ) thickness. The conformable, quick and easy releasable, “functional” side of the product [see Figure 1] has a matte appearance and is opaque and should be placed adjacent to the Circuit. The other side, which is placed against a PACOPAD® conformable driver sheet, is easily distinguishable from its opposite side because it is glossy and non-releasable.

LAMINATION PROCESS ADVANTAGES

- **Elimination of Entrapped Air Between Cover-Layer and Circuitized Base**
PACOFLEX•ULTRA delivers discreet hydraulic force to reliably drive the Cover-Layer into complete sidewall conformance with the circuitized base laminate.
- **Finite Control of Adhesive Flow**
Due to the optimized, robust smooth surface and superior conformability, PACOFLEX•ULTRA dams back acrylic and epoxy adhesives from flowing into Cover-Layer clearance areas.
- **Quick, Easy, Contaminate-Free Release**
The opaque, non-contaminating, releasable side of PACOFLEX•ULTRA is placed adjacent to the surface of the Cover Layer Circuit; leaving the glossy side to be positioned adjacent to the Pacopad side in the make-up. This combination offers maximum “Z-Axis” pressure equalization and a more robust conformable make-up system.
- **Reduces Mechanical Distortion and Defects**
PACOFLEX•ULTRA “locks-in” around the flexible components to minimize distortion due to Heat and Pressure. Our “ULTRA” Film conforms closely to the part’s surface without excessive flow-out from the sheet. Because of the reduced pressure regime possible with our conformable “system”, Deformed Circuits, Crushed Pads, and Glossy Pressure Spots are eliminated, resulting in repeatable Pad Registration.

CONTROLLED ADHESIVE FLOW

Construction: 0.002" [50 μ] Kapton® Polyimide Film & 0.002" [50 μ] Adhesive.



Less than
2.5 Mil (63μ)
adhesive
squeeze out

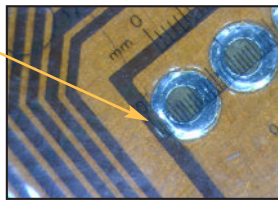
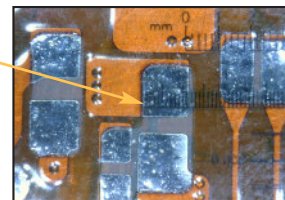


Figure 2



Less than
2.5 Mil (63μ)
adhesive
squeeze out

[Click on photos to view enlargement.](#)

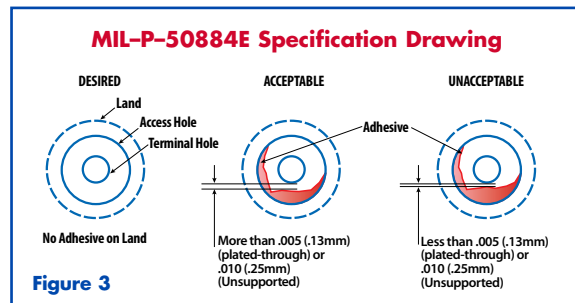
Scale: Each line is 5 Mil (125μ)

PACOFLEX•ULTRA PRESSURE-REDUCTION SYSTEM

PACOFLEX•ULTRA used together with Pacopads® Pressure Diffuser Pads, delivers unmatched Z-Axis pressure equalization. These two companion products provide simultaneous micro & macro conformance and stabilize all the flexible components permitting reductions in Hydraulic force by ≥ 30%. Pacopads compensate for uneven internal press pressure imposed upon the work.

GENERAL FEATURES

- **Two-side releasable! No out-gassing or contaminant transfer that will affect solder adhesion.**
- **Engineered conformance layer that prevents uncontrolled "squeeze-out" and meets Mil and IPC Specs (see adjacent illustration).**
- **"Ultra smooth" surface finish for superior adhesive flow control.**
- **Extremely low X-Y axis movement.**
- **Clean, inert with no out-gassing of contaminants or solvents harmful to vacuum systems.**
- **Operating temperature to 420° F/216° C with reduced ram pressures.**
- **Environmentally friendly with no ozone-depleting chemicals or flourines. Suitable for incinerator or landfill disposal!**
- **Proven line of Pacothane® products sold worldwide since 1985.**



AVAILABILITY

PACOFLEX•ULTRA and **PACOPADS** are always available in custom sized sheets tooled to customer specifications. These products, as well as the complete line of Lamination Enhancement Products listed (right), are available from leading local distributors around the world, who offer "just-in-time" delivery from locally available stocks.

RELEASE PRODUCTS



PRESS PADS



APPLICATION SPECIFIC



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