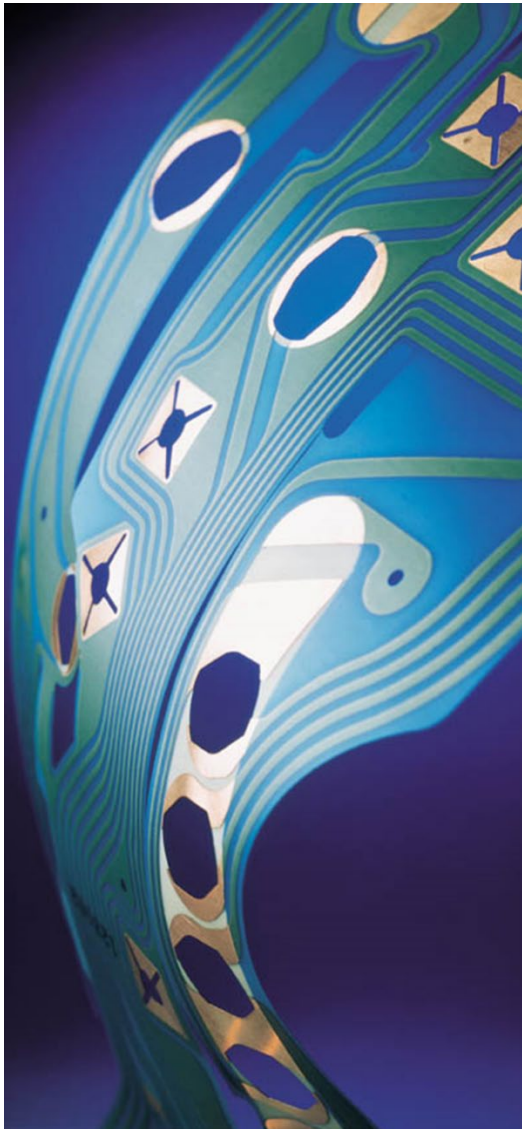


tecnilith® OVERVIEW ARTWORK PROTECT FILM (APF)



PRODUCT DESCRIPTION

tecnilith® Artwork Protect Films prevent scratches and chemical damage to printed circuit artwork that may occur during use or cleaning. Their powerful barrier protection, both clear and thin, offer high light transmission and low haze. They can be easily applied using your existing laminating equipment.

tecnilith® APF films are manufactured in facilities that meet the highest industry standards:

- Class 1000 cleanrooms
- Class 100 coating heads and dryers

Transcontinental Advanced Coatings manufactures tecnilith® APF to meet the specific requirements of the PCB industry. We are one of the world's largest manufacturers of precision-coated products for numerous imaging applications.

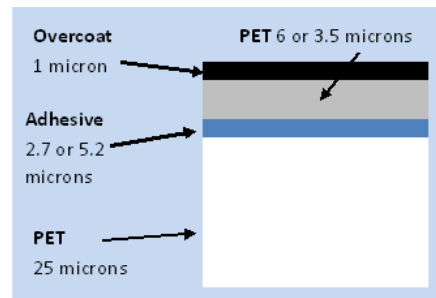
For 50 years Transcontinental Advanced Coatings has manufactured products for the electronics industry; including artwork protect films, dry film resist, Phototool film and other electronic films and laminates.

BENEFITS

Protects artwork from scratches and chemical damage from LPI inks and chemical solutions without interfering with light transmission. These films can be used with your existing laminating equipment. High resolution, image accuracy, consistent laminating results, compact and clean.



FEATURES	BENEFITS
6 or 3.5 microns PET barrier	Can save up to 45% of Phototool cost Prevents scratches and chemical damage
Excellent light transmission qualities	Reproduces fine lines and spaces
2.7 or 5.2 microns optically clear adhesive	Easily removed and reapplied
1-micron overcoat/release/anti-static liner	Prevents mask and airborne contaminants from sticking to the Phototool, easy to clean
Available in 18" - 26" wide rolls and custom lengths on request	Choose from sizes that minimize waste and inventory
Laminator	Apply with your existing laminator
Paper Companion Roll	Paper – for standard use



PRODUCT SPECIFICATIONS	PROPERTIES	STRUCTURE
<ul style="list-style-type: none"> Visually transparent film that can exhibit a slight iridescence when viewed in reflective light Less than 6µ reduction in both Print & Etch and Plating resolution SEM analysis reveals a more positive foot at the resist to copper interface using APF versus non-protected dry film resist For use with 24 or 30" laminators Designed to laminate a variety of silver halide, diazo and glass phototools Available in 6µ and 3.5µ film Slipcoat resists scratches and deterioration by chemical solvents <p>Benefit: Chemical Resistance</p> <ul style="list-style-type: none"> tecnilith® APF has been tested against all known solvent types used in PCB production shops and has exhibited exceptional chemical resistance. <p>Product Type</p> <ul style="list-style-type: none"> TEC 3.5, 3.5L and 3.5LV available in 3.5µ film thickness TEC 6.0, 6.0L, 6.0LA, 6.0LV and 6.0LVZ available in 6.0µ film thickness 	<ul style="list-style-type: none"> ~1% haze (APF-L) ~6% haze (APF-LV) ~88% light transmission (APF-L) ~80% light transmission (APF-LV) ~17grams per linear inch Initial Tape Adhesion (Release) Initial Peel Silver Halide: ~200 grams per linear inch Initial Peel Diazo: ~210 grams per linear inch ± 1/16" Slitting tolerance 18 – 26" widths 500' and custom lengths Resistant tested for PCB chemicals 	<p>Structure</p> <ul style="list-style-type: none"> ~1.0µ Slipcoat ~6.0µ or ~3.5µ Polyester ~2.7µ or 5.2µ Adhesive ~2.5µ (92) Polyester Release Liner

NAME	FILM	ADHESIVE	TACK LEVEL	SLIPCOAT	TYPICAL APPLICATIONS
TEC 3.5	3.5µ thick	2.7µ thick	~250 gm/li	NO	< 3mil lines and spaces / using tape on artwork - DFR
TEC 3.5L	3.5µ thick	2.7µ thick	~250 gm/li	YES–Matt	< 3mil lines and spaces
TEC 3.5LV	3.5µ thick	2.7µ thick	~250 gm/li	YES: Super Matt	< 3mil lines and spaces / better vacuum drawing
TEC 6.0	6.0µ thick	2.7µ thick	~250 gm/li	NO	Use tape on artwork/blade to remove debris – DFR
TEC 6.0Z	6.0µ thick	5.2µ thick	~300 gm/li	NO	Using tape on artwork/no bubbles on edges – DFR
TEC 6.0L	6.0µ thick	2.7µ thick	~250 gm/li	YES–Matt	Most Applications
TEC 6.0LA	6.0µ thick	2.7µ thick	~150 gm/li	YES–Matt	Will not tear even with frequent removal of film
TEC 6.0LV	6.0µ thick	2.7µ thick	~250 gm/li	YES–Super Matt	Less glossy appearance/better vacuum drawing
TEC 6.0LZ	6.0µ thick	5.2µ thick	~300 gm/li	YES–Matt	Max. chemical protection/no bubbles on edges
TEC 6.0LVZ	6.0µ thick	5.2µ thick	~300 gm/li	YES–Super Matt	Less glossy appearance/better vacuum drawdown, no bubbles on edges

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