

ORDYL DRY FILM AM 900

PRODUCT DATA SHEET
Edition 05 – 28 August 2019

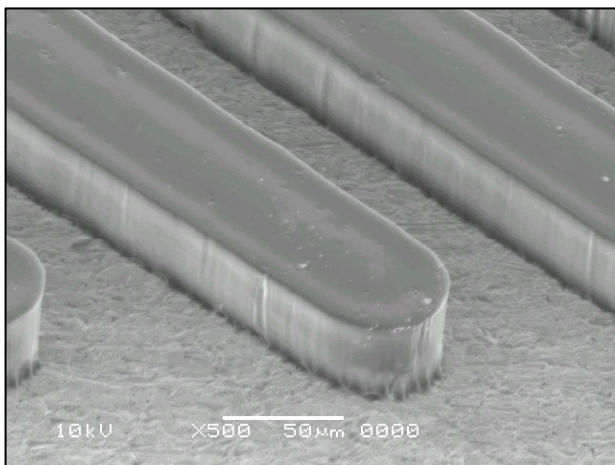
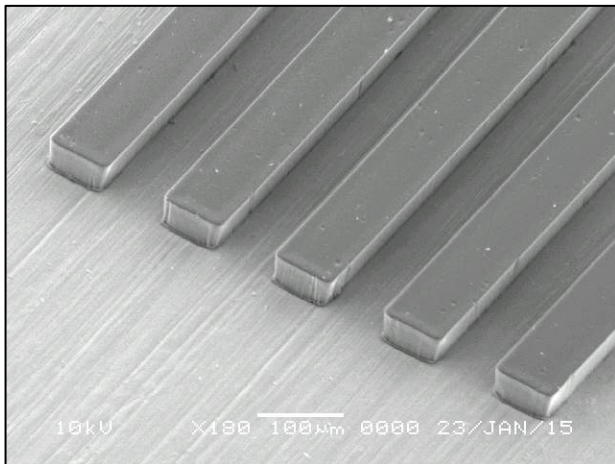
PRODUCT DESCRIPTION

Ordyl AM 900 is a negative, aqueous process able dry film designed to be exposed both with sources at 405 nm wavelength, double wavelength systems (when one is 405 nm) and standard UV sources.

AM 900 is developable and strippable in mildly alkaline solutions and offers superior performances and resistance to leaching in all the most commonly used plating bath in PCB manufacturing.

Ordyl AM 900 has good adhesion on copper surface and for this reason is indicated for direct plating process and in case of surface preparation is not good. This type of dry film ensure good tenting performances even on large tooling holes; this can be achieved starting from 40 μm thickness.

Ordyl AM 950



Main Features:

- Excellent through cure polymerization
- Good adhesion properties
- Very High Photospeed
- High flexibility and conformability

Typical Application:

- Acid etching
- Tenting process
- Copper, tin, tin/lead plating

Available Thickness:

- 30 μm (1.2 mils), 40 μm (1.5 mils), 50 μm (2 mils), 60 μm (2.4 mils) and 75 μm (3 mils) for standard application

PROCESS INFORMATION

Surface preparation

AM 900 guarantee good adhesion on the following surface:

- Vendor copper
- Electroless copper and panel plated copper, both unscrubbed and treated with pumice and brush
- Chemical microetched surface

We recommend good surface cleaning in order to obtain optimal performance.

Lamination

Panels must be thoroughly dry prior to lamination.

	MANUAL LAMINATOR	AUTOMATIC LAMINATOR
Pre-heat	(OPTIONAL)	(OPTIONAL)
Hot roll temperature	105 – 125°C (221 – 257°F)	105 – 125°C (221 – 257°F)
Lamination roll pressure	2.5 – 3.5 bar (35 – 50 Psi)	2.5 – 6.0 bar (35 – 85 Psi)
Lamination speed	1 – 3m/min (3 – 10 feet/min)	1 – 3m/min (3 – 10 feet/min)
Seal temperature	---	40 – 80°C (105 – 180°F)
Seal pressure	---	3.0 – 6.0 bar
Seal time	---	1 – 4 sec.

Board exit temperature

Inner layer 50-70°C (122-160°F)

Outer layer 45-60°C (110-140°F)

Post lamination Hold Time

We recommend a hold time of at least 20 min, or in any case the minimum hold time necessary to allow panels to cool down to room temperature.

Exposure

We recommend using sources with emission peak at 405 nm or double wavelength exposure systems (when one is 405 nm).

The following parameters are referred to:

6-7 Solid STEP of SST21

16-21 Solid STEP of SST41

7-12 Solid STEP of RST25

	AM 930	AM 940	AM 950	AM 960	AM 975
Energy (mJ/cm²)	14 - 20	16 - 22	18 - 24	22 - 28	35 - 45
Resolution	30 µm (1.2 mils)	40 µm (1.5 mils)	50 µm (2 mils)	60 µm (2.4 mils)	75 µm (3 mils)

Hold Time after exposure

We recommend a minimum hold time after exposure of at least 15 minutes.

Developing

	Na ₂ CO ₃		K ₂ CO ₃	
	Range	Optimal	Range	Optimal
Concentration	0.8 – 1.2%	0.9%	0.6 – 1.0%	0.8%
Temperature	26–32°C (80–90°F)	29°C (85°F)	26–30°C (80–86°F)	28°C (82°F)
Spray pressure	1.2–1.8 bar (17–25 Psi)	1.5 bar (22 Psi)	1.2–1.8 bar (17–25 Psi)	1.5 bar (22 Psi)
Break Point	50 – 65%			
Rinsing water	9-15°dH (150–250 ppm CaCO ₃)	12°dH (213 ppm CaCO ₃)	9-15°dH (150–250 ppm CaCO ₃)	12°dH (213 ppm CaCO ₃)

We recommend a rinse module with a length of a least 2/3 of the developing module.

The rinse water temperature should be preferably between 15-25°C (59-77°F), optimal at 20°C (68°F).

Developing time (B.P. 60%)

	AM 930	AM 940	AM 950	AM 960	AM 975
Developing time	25 sec.	35 sec.	50 sec.	65 sec.	90 sec.
Dry Film load 1 g/l (0.13 oz/gal)	0.03 m ² /l 1.2 ft ² /gal	0.025 m ² /l 1.0 ft ² /gal	0.017 m ² /l 0.7 ft ² /gal	0.012 m ² /l (0.5 ft ² /gal)	0.008 m ² /l (0.3 ft ² /gal)

We recommend a maximum Dry Film load of 5 g/l (0.65 oz/gal).

We recommend the use of "Ordyl Antifoam C".

Stripping

Stripper	NaOH / KOH
Concentration	1.0 – 3.0%
Temperature	40–60°C (104–140°F)
Spray pressure	1.5 – 4.0 Bar (22–58 Psi)
Break Point	40 – 60%

We recommend the use of "Ordyl Antifoam C".

Proprietary strippers

Can be used in order to obtain smaller flakes, higher stripping speed, reduce copper oxidation and Tin or Tin/Lead attack.

We recommend the use of "Ordyl Stripper 5600".

For any other technical information (storage conditions, packaging information, etc.) refer to the Ordyl Specification (Form EE.P11.CV.02-ww)

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