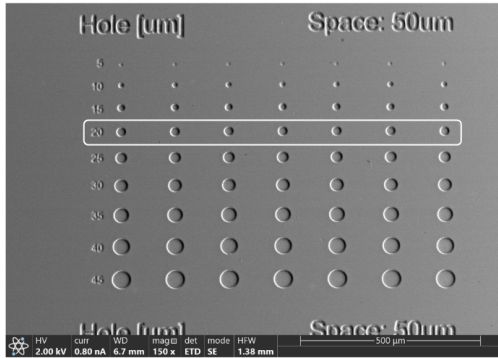


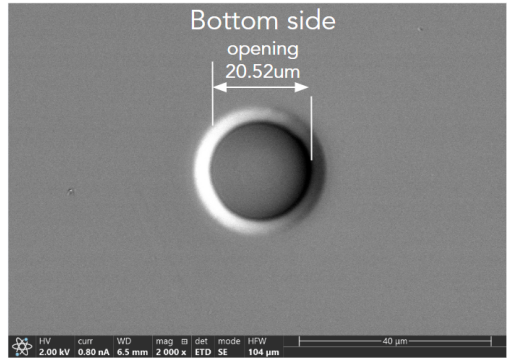
ADL Team Photolithography Capability

Meet the customer requirements
 : 20um hole pattern resolution implemented based on the formulation tuning
 : Holes fully opened down to 20um without residues on bottom side.

Full Pattern Image



Top View

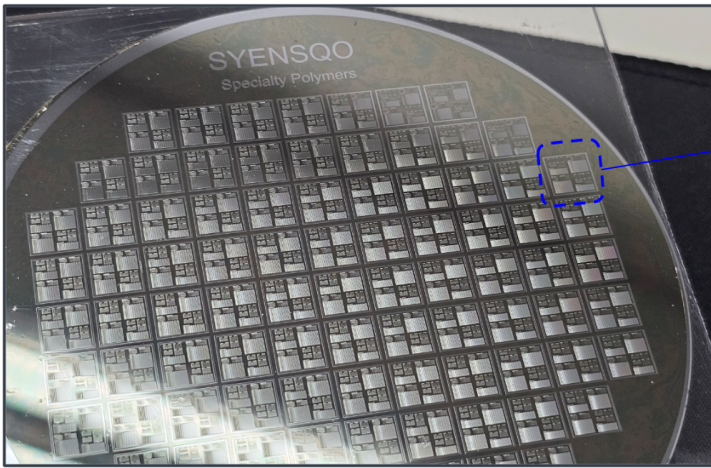


Bottom side opening size is 20.52um that match with mask pattern size

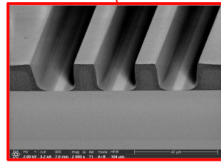
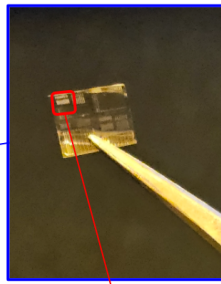


SYENSQO developed backbone resin shows a similar pattern performance when compared with competitors products

	Product A	Product B	SYENSQO S-3000
Coating RPM	1650rpm for 15um	900RPM for 15um	800RPM for 20um
Softbake	4min @ 100	5min @ 110	3min @ 70oC
UV exposure	Broadband: 450mJ/cm2	Broadband: 300mJ/cm2	Broadband: 500mJ/cm2
PEB	No	60sec@50	1min @ 90oC
Develop	Time	45sec dipping	45sec dipping
	developer	CP	
Rinse	15sec @ PGMEA		20sec @ PGMEA
Thickness after dev.	13.9um	13.5um	13.3um
Hardbake	1. 50 to 110 during 12min	1. 50 to 150 : 5/min	1. 50 to 150 : 5/min
	2. 30min@110 Hold	2. 30min@150 Hold	2. 30min@150 Hold
	3. 110-250 during 28min	3. 150 to 230 : 5/min	3. 150 to 230 : 5/min
	4. 120min@250 Hold	4. 3hr @230 Hold	4. 3hr @230 Hold
Final Thickness	8.9 um	9.4um	10um
	Max. pattern Resolution : 20um	Max. pattern Resolution : 30um	Max. pattern Resolution : 25um



4 inch SI wafer (Test vehicle)



Pattern