



A-SAP™ Technology Reliability

D-Coupon Test Results

Multiple coupon configurations and process runs have been tested at multiple facilities on the OM Thermal Stress System with passing results.

Test conditions for Reflow Parameters: 6 cycles from 45 to either 230, 245, or 260°C followed by Thermal Shock Parameters of 100 cycles from -55 to 170°C

A total of 83 coupon sets from 6 different process runs were tested in the IPC TM-650-2.6.27b test with single vias, staggered vias and stacked vias (2)

Additional tests are ongoing to increase process sampling and via stack depth.

Interconnect Stress Testing – IST

Plated Through Vias: Passed testing at the 150 C condition for 500 cycles.

Micro via Circuits: Passed testing at the 190 C condition for 500 cycles following plated through via testing.

Per IPC TM-650-2.6.26a

Peel Strength Testing:

Type	Material	Manufacturer
FR4	370 HR	Isola
	N4000-29	AGC MM
	EM285 (HF)	EMC
	EM370 (HF)	EMC
	I-Speed	Isola
Mid Loss	N4800-20	AGC MM
	EM526 (HF)	EMC
	I-Tera MT40	Isola
Low Loss	TerraGreen	Isola
	Megtron 6	Panasonic
	RO4350	Rogers
	MW2000	AGC MM
	EM891	EMC
	Tachyon100G	Isola
Very Low Loss	Megtron 7N	Panasonic
	MW4000	AGC MM
	MW8000	AGC MM
	EM890 (HF)	EMC
	CS3379M	Risho

Type	Material	Manufacturer	
PTFE	RO3003	Rogers	
	CLTE-AT	Rogers	
	FastRise TC	Taconic	
	FastRise TC	Taconic	
	EZ-IO F	Taconic	
	F220D	NPP	
	F300ASU	NPP	
Polyimide	P96	Isola	
BT	N5000	AGC MM	
Flex	LCP	R-F705S	Panasonic
		EXSYLAM-N	Ube
	Polyimide	Pyralux AP	Dupont
		Pyralux AG	Dupont
		R-F755	Panasonic
		PIXEO	Kaneka
BU Film	UPISEL-N	Ube	
	GX92	AFT	
	GL102	AFT	
	Zaristo125	Taiyo Ink	
	Zaristo500	Taiyo Ink	
	Zaristo700	Taiyo Ink	

Testing is ongoing, across a range of materials. For more information, contact Averatek.

More than 1000 panels have been processed with A-SAP™

The process is a proven and tested additive fabrication method to achieve next-generation advancements.

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Manufacturing technology for next-generation electronics capabilities. The development of key chemistries and advanced manufacturing processes for very high-density printed circuit boards, semiconductor packaging, RF and millimeter-wave passive components, simplified assembly to aluminum. Contact our leadership team today at info@averatek.com.