

ARLON ULTRAPAD™

REUSABLE SILICONE PRESS PAD

PRESSURE UNIFORMITY THAT YOU CAN COUNT ON FOR MULTILAYER, FLEXIBLE CIRCUIT, AND RIGID-FLEX CIRCUIT LAMINATIONS.

- Best in class service life at any lamination condition
 - low cost per use, fewer changeovers
- Consistent, reliable service life
 - predictable changeover schedule, higher yield (no lost loads)
- Uniform pressure over the entire laminate surface
 - higher yield, better quality laminate
- Available in softer low durometer variants
 - lower durometer > better pressure uniformity

Arlon UltraPad press pad is a high performance, fiberglass reinforced, silicone sheet designed for flex and rigid-flex circuitry lamination. UltraPad press pad provides excellent pressure uniformity with unparalleled consistency and longevity throughout its service life. UltraPad press pads are the most cost effective press pad solution across a wide range of process pressures and temperatures.

Arlon has conducted extensive research on lamination pressure uniformity. This research has shown that two press pad physical properties correlate with pressure uniformity: thickness and durometer.

Thicker pad > better pressure uniformity
Softer pad, lower durometer > better pressure uniformity

This is useful in comparing press pad performance, as well as in determining the end of useful service life for a silicone press pad. The table below shows Arlon UltraPad press pad service life in comparison with competitive silicone press pad materials. All one hour press cycles were run at 2.07 MPa (300 psi).

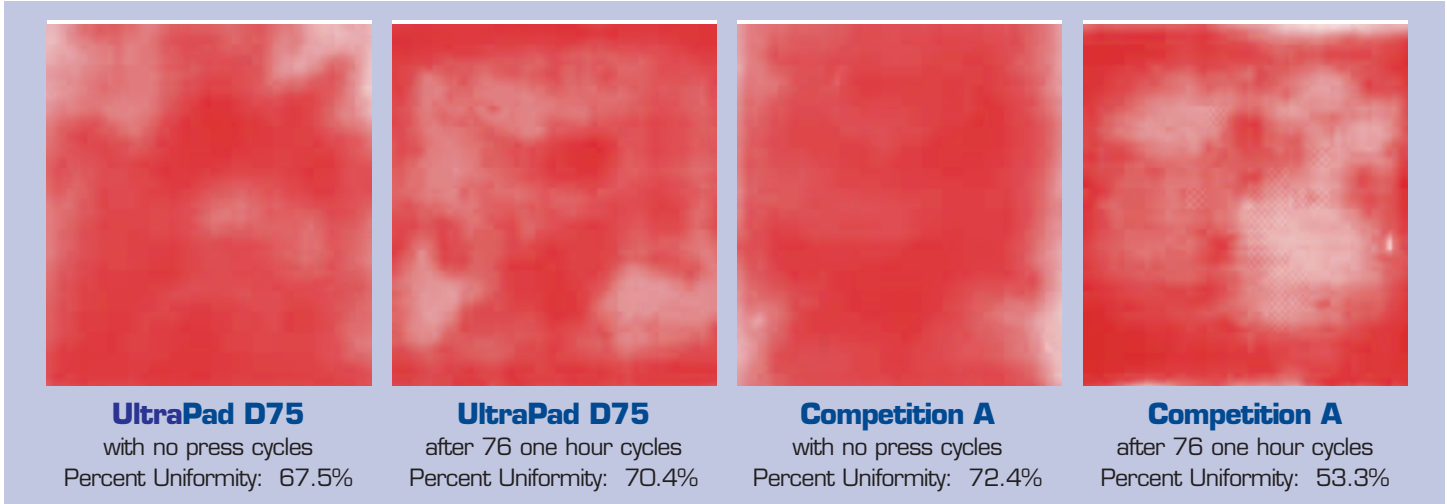
	UltraPad™			Competition		
	D75	D70	D65	A	B	C
Initial durometer (SAP)	75	70	65	75	76	80
250°C	41	31	28	28	22	31
225°C	140	155	133	76	50	50
200°C	502	568	470	282	195	117



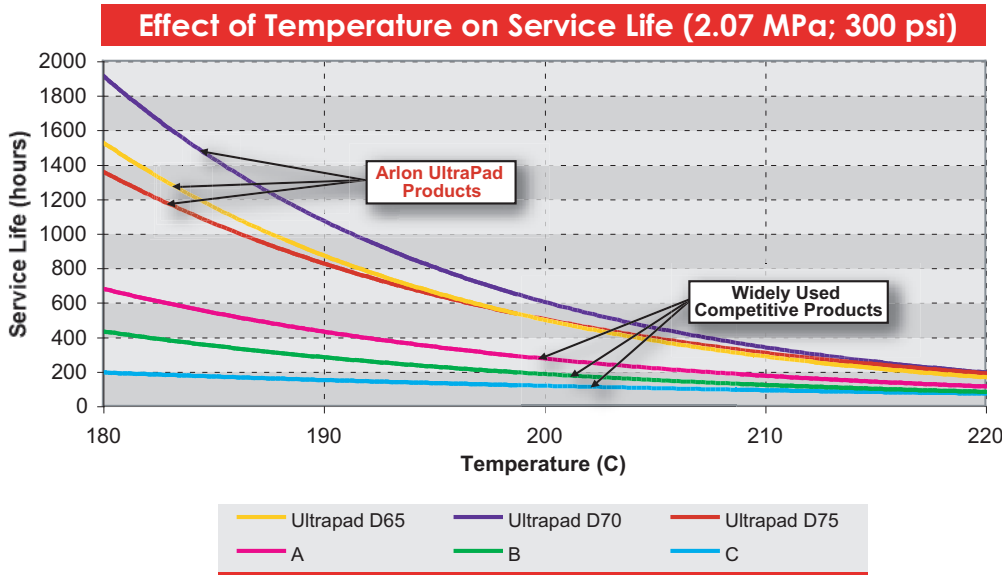
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The photos below show a pressure distribution comparison for UltraPad™ press pad versus a competitive material using pressure sensitive paper. Both photos show test results after 76 one hour press cycles @ 225°C and 2.07 MPa.



By utilizing imaging software, you can see that after 76 hours the fiberglass pattern is visible on pressure sensitive paper and the competitive product's service life has ended. After 76 hours, UltraPad has simply conformed to the press assembly yielding similar pressure uniformity as it had at the beginning of the test.



This chart provides press pad service life (one hour press cycles) over a temperature range of 180°C to 220°C. Three versions of UltraPad are compared to several competitive products, (A, B, C) when press cycled at 2.07 MPa.

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