

- FC295P (fast-cure) and SC918P (standard-cure) are STR’s newest EVA-based formulations. These formulations were developed to provide robust encapsulant performance in a cost-effective material solution.
- Both formulations have outstanding photothermal stability (see Figures 1 and 2). The resistance to discolor is so great that either can be used behind non-UV-screening glass, i.e., glass that does not contain cerium dioxide.
- In addition to its exceptional photothermal stability, each encapsulant is offered in STR’s proprietary User Friendly (UF) configuration. The UF process imparts a uniform, non-tacky texture on the surface and, more importantly, eliminates shrinkage, allowing for faster laminator throughput and a wider process window.

Property	Units	SC918P	FC295P
Ultimate Tensile Strength	PSI	1890	2620
Ultimate Elongation	%	510	700
Young’s Modulus	PSI	1215	1128
Secant Modulus	PSI	1130	1130
Hardness	Shore A/D	69/21	69/21
Optical Transmission	%	91	91
Refractive Index		1.482	1.482
Dielectric Strength	V/mil	1400	1400
Volume Resistivity	Ohm/cm	8.17×10^{14}	8.85×10^{14}
UV Cutoff Wavelength	nm	360	360
Adhesion to glass	lb/in	40-50	40-50

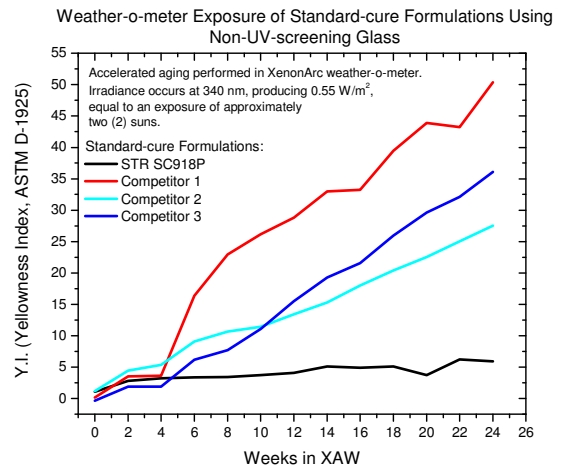


Figure 1. Discoloration as a function of time for standard-cure encapsulant formulations exposed to accelerated aging conditions.

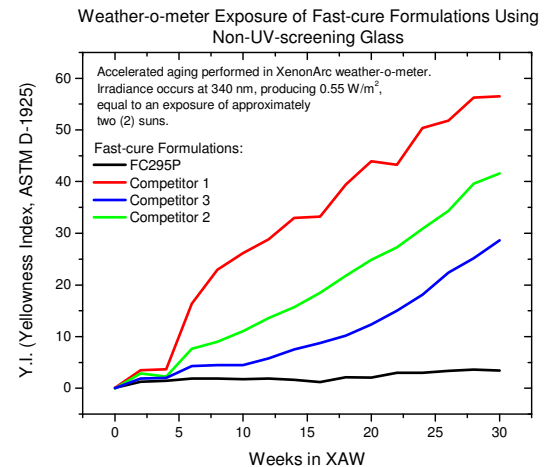


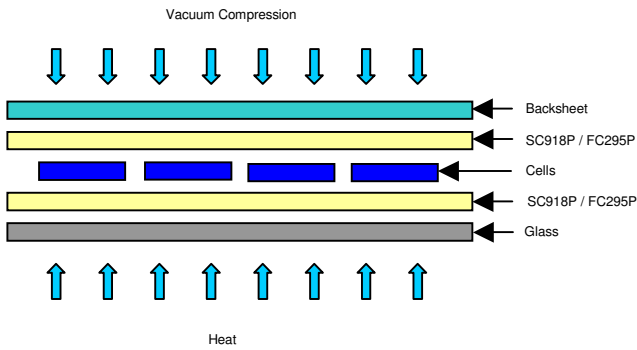
Figure 2. Discoloration as a function of time for fast-cure encapsulant formulations exposed to accelerated aging conditions.

Process Recommendations

Step	Lamination			Step	Lamination			Oven-Cure
	Lay Up	Vacuum	Press		Lay Up	Vacuum	Press	
Temp		150 °C	150 °C	Temp		150 °C	150 °C	140 °C
Time		4 minutes	8 minutes	Time		4 minutes	2 minutes	24 minutes

FC295P

SC918P



For users of STR's 15295P (fast-cure) or A9918P (standard-cure) formulations, FC295 or SC918P can invisibly be substituted into production without process modification.

The lamination processes described above have resulted in good, quality PV modules of reproducible cure and appearance. These cycles should not be used in production until verified on your specific equipment by gel content testing.

For more information about our encapsulant materials (including sample requests), please contact a customer service representative at STR Extruded Products at 860 749 8371 (phone), 860 749 8234 (Fax), or by e-mail using the address posted on our company website at www.strus.com