Technical Note

TN1037: Laminated LCG® Durability

Durability tests are performed on Gauzy LCG® with laminated liquid crystal films developed and manufactured by Gauzy. Status of fulfillment and the actual values vs. the thresholds to reach are as follows:

	Power	Black panel temp. [°C]	RH [%]	$\Delta Haze_{on}$ [%]	$\Delta Haze_{off}$ [%]	ΔT_{on} [%]	ΔT_{off} [%]	ΔE^* [%]	Defects (Bubbles, whitening Yellowing)
				Threshold: -2%<ΔH<2%		Threshold: -4%<ΔT<4%		Threshold: -5%<ΔE*<5%	
ISO 4892-2	1.1 W/m²/nm to 420nm	70	50%	+2.0	+0.2	-1.2	-2.4	+1.5	-
ISO 105 B02	1.1 W/m²/nm to 420nm	65	30%	+1.9	+0.1	-3.3	-1.4	+1.4	-
SAEJ 2412	0.55 W/m²/nm to 340nm	90	20% Arizona	Under testing					

	Conditions	Defects	Results
High temp. EN-12543-4	56 days, 80°C	-	Passed
High Humidity, EN-12543-4	56 days, 58°C/95%RH	-	Passed
Cycles, EN 1279-2	4 weeks, (-18)-53°C	-	Passed

For ISO 4892, 740hr Weather-O-meter corresponds to 11-month Arizona or 21-month central European climate. Gauzy runs the ISO 4892-2 continuously in parallel to other tests. Results herein show that Gauzy's White PDLC continue to maintain performance (in terms of life time) after ~18 years. Samples remain in the weathering machine and are continuously evaluated over set periods of time.