

PRIVASEE[®] SMART GLASS SYSTEMS

SMART GLASS — ENGINEERING REFERENCE (= SG-01)

Quick Datasheet · Smart Glass Systems · LG-01

6 + 0.8 + 0.4 + 0.8 + 6 mm symmetric · total 14.0 mm nominal · 13.82 mm factory measured

DOCUMENT CODE PVS-SGS-DAT-LG-01-Q · Rev 1.0 · 2026-05-11

§A · PRODUCT OVERVIEW

PRIVASEE® Smart Glass — Engineering Reference (= SG-01) · EVA Laminated PDLC Smart Glass

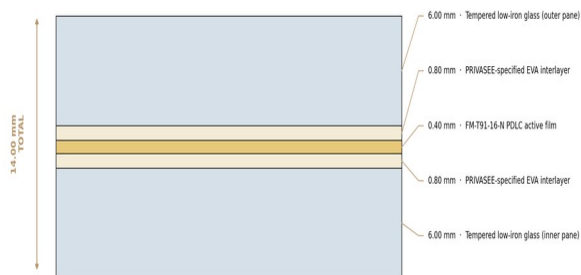
PRIVASEE® LG-01 is an EVA-laminated PDLC Smart Glass assembly. The PDLC active film is sealed between two tempered low-iron glass panes with PRIVASEE-specified EVA interlayer, providing on-demand privacy and integrated electrical switching. 6 + 0.8 + 0.4 + 0.8 + 6 mm symmetric · total 14.0 mm nominal · 13.82 mm factory measured

§B · LAYER COMPOSITION (Standard build)

Layer	Material	Thickness	Function
Outer pane	Tempered low-iron glass	6.0 mm	Structural · weather-facing
Outer interlayer	PRIVASEE-specified EVA	0.8 mm	Bonding · impact safety
Active layer	FM-T91-16-N PDLC film	0.4 mm	Switchable opacity
Inner interlayer	PRIVASEE-specified EVA	0.8 mm	Bonding · impact safety
Inner pane	Tempered low-iron glass	6.0 mm	Structural · interior-facing
Σ Nominal total	—	14.0 mm	Per ISO 12543-5 ±0.5 mm
Σ Factory measured	—	13.82 mm	EVA cure-compression ~0.18 mm total

2D engineering view

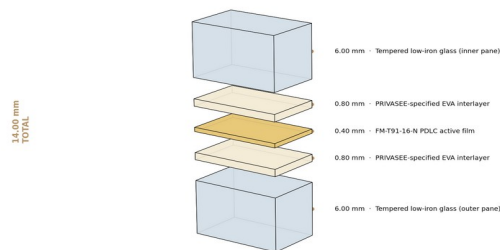
SG-01 / LG-01 · Standard EVA Laminated PDLC Smart Glass



Engineering cross-section - proportional - all dimensions in mm - PRIVASEE® Smart Glass Systems

3D isometric exploded (XYZ)

SG-01 / LG-01 · 3D Isometric Exploded · Standard Build-Up



3D isometric exploded view - proportional - all dimensions in mm - PRIVASEE® Smart Glass Systems

Per PRIVASEE® brand rule — every engineering drawing presented as 2D cross-section + 3D isometric XYZ view.

§C · KEY PERFORMANCE

Optical · Switching · Service Life · per locked datasheet

C.1 · Optical performance

Parameter	ON state	OFF state	Tolerance	Claim code
Visible Light Transmittance	90 %	80 %	± 2.0 %	P-001 / P-002
Haze	≤ 2.5 %	≥ 99 %	± 0.5 / ± 1.0 %	P-003 / P-004
Viewing angle	> 140°	—	—	ISO 9050
UV transmission	< 1 %	< 1 %	—	ISO 9050

C.2 · Switching

Parameter	Value	Reference
Transition OFF → ON	< 100 ms	Internal LP-002
Transition ON → OFF	< 200 ms	Internal LP-002
Operating cycles	> 1,000,000	Industry standard
Power-loss default	OFF (privacy)	Fail-safe

C.3 · Service life (LP-002 verbatim)

PRIVASEE® PDLC Smart Glass is engineered for in excess of 80,000 hours of service in continuous demand-led operation. Actual service life is project-specific and subject to the warranty terms documented in QUA-01b.

C.4 · Power compatibility

Compatible with all PRIVASEE® Power Drive families: PJ-D (standard) · PJ-C (compact) · DZD (variable / dimming) · LD-A (radar-sensor) · DZ6L (6-channel multi-panel) · CZ (vehicle / marine DC). See Power Drive Manual (PVS-SGS-CAT-PD-01).

§D · COMPLIANCE + §E · ARCHITECT-SPEC + §F · DOCUMENT REFERENCES

§D · Compliance

Standard	Description
BS EN 14449	Glass in Building — Laminated glass and laminated safety glass
CE TTC-26-2703	EU Construction Products Regulation
ISO 9001:2015	Quality Management System · cert 17420Q22138R1S
IATF 16949:2016	Automotive Quality Management · cert DB00987
EN 12150 / BS 6206	Tempered safety glass · Class 1 impact performance
ISO 12543-5	Laminated glass tolerance · ± 0.5 mm

§E · Architect specification + lead-time

PRIVASEE® LG-01 EVA-laminated PDLC Smart Glass per BS EN 14449 · tempered low-iron glass per EN 12150 · PRIVASEE-specified EVA interlayer · FM-T91 PDLC active layer · perimeter sealed with TOSSEAL 381 silicone only. Standard 2-year warranty per QUA-01b. UAE warehouse stock available · UK launching soon. Approved cleaner: IPA 70% Antiseptic-Disinfectant only.

§F · Companion document references

Document	Code
Master Catalogue	PVS-SGS-CAT-SMART-GLASS-MASTER-01
Detailed Datasheet	PVS-SGS-DAT-LG-01 (Rev 2.6 with corrected VLT)
Custom Configurations	PVS-SGS-CAT-CONFIGS-01
Power Drive Catalogue	PVS-SGS-CAT-PD-01
Install Manual	TEC-07 Smart Glass Install Manual
Maintenance Guide	TEC-11b Smart Glass Maintenance Guide
Warranty Policy	QUA-01b Smart Glass Warranty (GCC + EU)
Method Statement	OPS-02 Method Statement (Lamination + Install)
Risk Assessment	OPS-03 Risk Assessment (RAMS)

Brand discipline reminder

Sealing — TOSSEAL 381 silicone only (other compounds VOID warranty).
 Cleaning — Isopropyl Rubbing Alcohol 70% on lint-free microfibre · spray on cloth not on surface.
 Wet-area — Smart Glass approved · 'enhanced water protection' / 'wet-area engineered' (NEVER '100% waterproof').
 Whiteboard — Smart Glass approved with dry-erase markers + approved cleaning.

Tell us your project. We engineer for it.

ENGINEERING ENQUIRY

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Locked phrases — LP-001 · LP-002 · LP-003

- LP-001 size envelope · LP-002 service life · LP-003 acoustic (verbatim usage required externally).
- VLT values are locked per published Canva datasheet template (90% ON · 80% OFF · \pm 2.0%).
- TOSSEAL 381 silicone only · IPA 70% only · LG-02 acoustic build per ISO 10140/717-1.