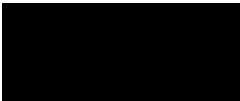


Certificate for the UL Mark – Enhanced Security Performance of Windows and Doors - PAS 24:2016

Section 1 – Certification details:

Customer Name:	Emplas Window Systems	Certification Body:	UL International (UK) Ltd
Fabrication Address:	Huxley Close Wellingborough NN8 6AB United Kingdom	Certification Body Address:	Halesfield 2, Telford, Shropshire, TF7 4QH United Kingdom
Certification Scheme:	Enhanced Security Performance of Windows and Doors (BSFD) V2	Certificate Number:	BP 21456-6
Date of Commencement:	21/08/2023	Date of Expiry:	20/08/2026
Certificate Compiled by:	Nick Steventon Certification Auditor	Certificate Approved by:	Mark Swanborough Certification Leader
Signed:		Signed:	

Section 2 - Products covered by this certificate:

System type and configurations:

System	Range of Configurations	Opening Direction	Maximum Casement Size (WxH)
Epwin / Profile 22 Optima – Standard Casement Window and Multilight	Casement Window Top hung	Outwards	1240 mm x 1240 mm
	Casement Window Side Hung	Outwards	740 mm x 1410 mm
	Fixed light	-	740 mm x 1410 mm

Extrapolation rules - Assuming identical hardware is fitted as specified in this certificate, the products listed are covered up to the maximum sizes stated above plus a 10% increase in height and/or width and down to a 50% reduction in height and/or width.

Section 3 - Supporting test documentation:

Initial Type Testing:

Product Type	Variant tested	BS 6375-1:2009		BS 6375-2:2009		BS 6375-3:2009		PAS 24:2016	
TH & SH Flush Window	Window systems	Test	Class	Test	Class	Test	Class	Test	Class
		Weathertightness	2000	Mechanical Cyclic operation Operating forces	2 4 2	NA	NA	Annex C	W

Annex A – Optima Flush Casement window (TH)

Outer Frame		
Frame Profile	Part No. / Material	Dimension (W x H mm)
	Epwin PVC	60 mm x 70 mm
	Head and Jambs – QC02	60 mm x 70 mm
	Bottom – QC02	-
	Anglo QR32 S - Steel	-
Reinforcing	Anglo QR32 S - Steel	-
Threshold	NA	-
Gasket	Coextruded Rubber	-
Jointing Method	Welded	-

Leaf		
Leaf Profile	Part No. / Material	Dimension (W x H mm)
	Epwin PVC	75 mm x 70 mm
	Top – QC30	75 mm x 70 mm
	Bottom – QC30	75 mm x 70 mm
	Lock side – QC30	75 mm x 70 mm
	Hinge side – QC30	75 mm x 70 mm
Reinforcing	Anglo QR32 S - Steel	-
Gasket	Coextruded Rubber	-
Jointing Method	Welded	-

Glazing & Infill		
	Description / Part No. / Material	-
Glass Configuration	At least 1 pane must be class P1A according to BS EN 356	-
Bead	QS50 Chamfered bead	-
Gasket	Co-Extruded	-
Clip	GT Window Products P4432	-

Hardware		
	Part No. / Material	Fixings
Hinge	Cotswold F-Stay 24in Pair E90921	Rapierstar SSR3.9 x25S SFG4.8 x 30S
Hinge protector	Avantis Dog Bolt E91156	Rapierstar CFG 4.3 x 25S
Handle	Avantis Signature RH WHT Flush E91136	M5 x45Zmm
Lock	Avantis FMT Lock 1150 E91116	Rapierstar CFG4.3 x 25Z
Lock keeps	Avantis FMT Keep Keep E91106 Dog bolt keep E91157	CSR3.9x25mm CFG 4.3 x 25S.3mm x 19mm
Lock option 2	Avantis Shootbolt Lock 1000 -1220 Shootbolt E91067 Shootbolt E91224	Rapierstar CFG4.3 x 25Z CFG 4.3 x 25Z
Lock keeps option 2	Avantis FMT Keep Keep E91104 Dog bolt keep E91157 Shootbolt keep E91099 and E91100	CSR3.9x25mm CFG 4.3 x 25S.3mm x 19mm
Additional Hardware	GT Products Sash wedges E70501 SAC Ecoseal E50020	-

Hardware SAC		
	Part No. / Material	Fixings
Hinge	Cotswold F-Stay 24in Pair E90921	Rapierstar SSR3.9 x25S SFG4.8 x 30S
Hinge protector	SAC Bolt E50030	Rapierstar CFG 4.3 x 25S
Handle	Total hardware Signature RH WHT E80007	M5 x45Zmm
Lock	SAC 600mm H4 Espag E90176 SAC Shootbolt E50017	Rapierstar CFG4.3 x 25Z
Lock keeps	SAC Super Espag Keep E90182 Shootbolt keep E50024 SAC bolt keep	CSR3.9x25mm CFG 4.3 x 25Z CFG 4.3 x 25S
Additional Hardware	GT Products Sash wedges E70501	-

Annex B – Optima Flush Casement window (SH)

Outer Frame		
Frame Profile	Part No. / Material	Dimension (W x H mm)
	Epwin PVC	60 mm x 70 mm
	Head and Jambs – QC02	60 mm x 70 mm
	Bottom – QC02	-
Reinforcing	Anglo QR02 S - Steel	-
Threshold	NA	-
Gasket	Coextruded Rubber	-
Jointing Method	Welded	-

Leaf		
Leaf Profile	Part No. / Material	Dimension (W x H mm)
	Epwin PVC	75 mm x 70 mm
	Top – QC30	75 mm x 70 mm
	Bottom – QC30	75 mm x 70 mm
	Lock side – QC30	75 mm x 70 mm
	Hinge side – QC30	75 mm x 70 mm
Reinforcing	Anglo QR29 S - Steel	-
Gasket	Coextruded Rubber	-
Jointing Method	Welded	-

Glazing & Infill		
	Description / Part No. / Material	-
Glass Configuration	At least 1 pane must be class P1A according to BS EN 356	-
Bead	QC50 Chamfered bead	-
Gasket	Co-Extruded	-
Clip	GT Window Products P4431	-

Hardware		
	Part No. / Material	Fixings
Hinge	Cotswold F-Stay 16in Pair E90943	Rapierstar SSR3.9 x25S SFG4.8 x 30S
Hinge protector	Avantis Dog Bolt E91156	Rapierstar CFG 4.3 x 25S
Handle	Avantis Signature RH WHT Flush E91136	M5 x45Zmm
Lock	Avantis FMT Lock 1250 E91117	Rapierstar CFG4.3 x 25Z
Lock keeps	Avantis FMT Keep Keep E91104 Dog bolt keep E91157	CSR3.9x25mm CFG 4.3 x 25S.3mm x 19mm
Lock option 2	Avantis Shootbolt Lock 1220 -1400 Shootbolt E91223	Rapierstar CFG4.3 x 25Z CFG 4.3 x 25Z
Lock keeps option 2	Avantis FMT Keep Keep E91106 Dog bolt keep E91157 Shootbolt keep E91101 and E91102	CSR3.9x25mm CFG 4.3 x 25S.3mm x 19mm
Additional Hardware	GT Products Sash wedges E70501	-

Hardware SAC		
	Part No. / Material	Fixings
Hinge	Cotswold F-Stay 24in Pair E90921	Rapierstar SSR3.9 x25S SFG4.8 x 30S
Hinge protector	SAC Bolt E50030	Rapierstar CFG 4.3 x 25S
Handle	Total hardware Signature RH WHT E80007	M5 x45Zmm
Lock	SAC 600mm H4 Espag E90176 SAC Shootbolt E50017	Rapierstar CFG4.3 x 25Z
Lock keeps	SAC Super Espag Keep E90182 Shootbolt keep E50024 SAC bolt keep	CSR3.9x25mm CFG 4.3 x 25Z CFG 4.3 x 25S
Additional Hardware	GT Products Sash wedges E70501	-