

MicroLouvre Guide Specification

Type : External Solar Shading / Solar Control

Colour: Fabric: (standard) Black RAL 9005 Frame: as required

Product: MicroLouvre™ Koolshade® Screens or equal and approved

1.0 Summary:

1.1 To provide an external passive solar shading system with the following proven / tested critical performance characteristics in one system

Thermal Comfort Performance

Solar Shading	Ss	100%	(angular selective >45°)
Solar Heat Block	Shb	100%	(angular selective >45°)
Solar Factor / Solar Heat Gain	(gtot)	0.00	(angular selective >45°)
Solar Transmittance	Ts	0.00	(angular selective >45°)
Solar Absorptance	As	0.97	(angular selective >45°)
Solar Reflectance	Rs	0.03	(angular selective >45°)

Visual & Environment Comfort Performance

Visual Contact with the Outside	VCO	Class 4 (EN14501 Classification)	
Daylight Utilisation	DU	Class 4 (EN14501 Classification)	
Colour Rendering Index	CRI	100%	(Fraunhofer ISE)
Light Transmittance	Tv	51.5%	
UV Protection.	UV	30° @ 68% - 50° @ 100%)	UV Block
Natural Ventilation	80%	(open area of fabric)	
Privacy & Security	100%	(angular selective > 45°)	
Insect / Bird Protection	100%	Bodies > 1.5 mm	

Fire Performance

Reaction to Fire Uncoated	A1/A2	A1/A2-s1,d0 : BS EN 13501-1:2007+A1:2009
Burning Ember exclusion		Objects > 1.5 mm
Fire / Heat Attenuation	BAL-40	AS3959-2009 (40kW/m2 incident irradiance)
	BAL-FZ	AS3959-2009 (40kW/m2 incident irradiance)

Wind Performance

Resistance	> Force12	Beaufort Scale -Hurricane. (BRE)
Resistance	Cat 2	Saffir–Simpson scale – Hurricane. (BRE)
Loading	14.65kg/m ²	with a wind velocity of 60mph through the screen

Energy Saving Performance

Air Conditioning reduction	68%	LBNL California
----------------------------	-----	-----------------

Durability Performance

Maintenance	Zero	
Energy Consumption	Zero	
Ancillary Power Supplies	Zero	
Warranty	10 years	Refer 1.7
Longevity	30+ years	Refer 1.7

1.2 Screens to be installed: Specifier to select applicable method: Direct fix / Lift in Lift Out / Hinged / Lateral Sliding / Horizontal Sliding / Other to suitable substrate

1.3 Quality Assurance:

1.3.1 Manufacturer to be ISO 9001: 2015

1.3.2 Supplier / Installer to be able to demonstrate suitable compliance and competence

1.3.3 Manufacturer shall have a minimum of fifteen (15) years experience in the manufacture of specified solar shading system.

MicroLouvre Guide Specification

Type : External Solar Shading / Solar Control

Colour: Fabric: (standard) Black RAL 9005

Frame: as required

1.3.4 Conform to applicable Building Code and Local Authority having jurisdiction and all other standards noted.

1.4 Inspection / Preparation:

1.4.1 Verify that any sub structure necessary to carry screen assembly hardware is adequate and properly installed and secure.

1.4.2 Notify Customer in writing of any deficiencies in the work of other trades that would affect the window treatment system.

1.4.3 Make accurate measurements at the site before fabrication. Check layout of glazing framing sections, spans, and loading capabilities.

1.5 Delivery Storage and Handling:

1.5.1 Do not deliver to site until areas to receive screens are completely finished.

1.5.2 Deliver materials in original protective wrappings / containers, with manufacturer's labels and seals intact.

1.5.3 Handle and store materials according to manufacturer's recommendations protecting materials and finishes from damages, marring of finishes or soiling.

1.7 Warranty:

1.7.1 Provide a limited manufacturer's warranty from the Date of Substantial Completion, covering the following:

Product: Ten (10) years for faulty material and workmanship conditional on regular service in accordance with recommendations and a certified service record kept.

Coatings: Two (2) Years conditional on regular service in accordance with recommendations and a certified service record kept.

1.7.2 Provide a limited installation warranty from Date of Substantial Completion, covering a period of **XX** year. (Distributor to commit)

1.7.3 Submit standard manufacturer's maintenance contract for review by Customer.

2.0 PRODUCT

2.1 Manufacturer:

Smartlouvre Technology Ltd, 18 The Tanneries, Brockhampton Lane, Havant, Hampshire, UK.

Phone: +44 (0) 2392 456333 Email: Sales@smartlouvre.com. Web: www.smartlouvre.com

Please note when approving an alternate system manufacturer please ensure that the performance criteria set forth in these specifications (1.1 & 1.3) are met.

2.2 Ancillary Hardware: to meet specific project requirements.

2.3 Key performance characteristics

Product : Solar Shading Screens Passive

Performance Summary : Refer 1.1 above

MicroLouvre Guide Specification

Type : External Solar Shading / Solar Control

Colour: Fabric: (standard) Black RAL 9005

Frame: as required

- 2.4 Type of System (Standard)
- | | |
|-------------------|--|
| Passive / Static | Direct Fix
Lift In / Lift Out
Hinged |
| Passive / Dynamic | Lateral Sliding
Vertical Sliding
Angled Sliding
Other (to be specified) |

3.0 EXECUTION

3.1 Fabrication:

3.1.1 Screen system components manufactured and assembled allowing for installation techniques to suit project requirements.

3.1.2 The screen shall be manufactured from long lasting metal fabric
Bronze metal to be to BSEN 12166, tested in accordance with ISO 9227, ISO 6270, ASTM G154, QUVB 3138
Aluminium Extrusions to E N 755 – 9, coated to EN 12206, EN 13438, AAMA 2603-13
Sealants and ancillary components: specify as required

3.1.3 Finished screens shall be, square, true to size and free from distortion, twist, or other defects that could affect their strength, operation or appearance. Factory applied finish shall be uniform, smooth and without blemishes.

3.1.4 The metal fabric shall be retained under tension by a proven stainless-steel retention system inside the top and bottom frame extrusions. Where necessary the top and bottom frame extrusions will have predetermined negative bow in order to compensate for the tension of the metal fabric. The bottom frame section to be drilled with drainage holes where required.

3.1.5 Standard Screens: The metal fabric shall be secured within the side frames by EPDM retaining strip to ensure tension no vibration.
FHA Screens: The metal fabric shall be secured within the side frames by A1 EPDM retaining strip to ensure tension no vibration.

3.2 Installation:

3.2.1 Install work by supplier's competent tradesmen and installed in strict accordance with manufacturers recommendations.

3.2.2 All items installed, plumbed, squared, rigidly coupled and adequately anchored, maintaining uniformed clearances, accurate alignment levels, and parallel with the window plane.

3.2.3 The screen shall be pre-measured and manufactured off-site

3.2.4 Adjust screens, operating components and locks as required to ensure smooth and trouble-free operation without binding.

3.3 Final Works:

3.3.1 Clean screens and surroundings with fresh water and leave in a tidy condition

3.3.2 Replace work, which cannot be satisfactorily repaired, adjusted, or cleaned.

3.4 Service:

3.4.1 Wash screens and fittings with clean fresh water approximately once a year. In areas of high pollution (eg traffic, birds etc) or where the atmosphere is saline (ie. close to the sea) wash more frequently as required