**GREEN BUILDING STORE SPECIFICATION**

Environmental Construction Products Ltd

T/A Green Building Store

Heath House Mill

Golcar

Huddersfield

HD7 4JW

Tel: 01484 463336 (High Performance Windows Department) 461705 (Main Switchboard)

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Contact: Paul Cowley

**PRODUCT REFERENCE**

GBS ULTRA triple glazed window, inward or outward opening

**GENERAL SPECIFICATION**

**AIRTIGHTNESS**

All windows shall have double integral compression draught seals.

All windows shall have proof of performance by independent third party certification to BS EN 12207:2016 Class 4 600 Pa

**WEATHERPROOFING**

All windows shall have proof of performance by independent third party certification to exposure category in accordance with BS 6375-1:2015 not less than 1600

**TIMBER SOURCING**

All windows shall carry Forest Stewardship Council Chain of Custody with FSC 100% certification.

**SAFETY GLAZING**

All glass shall be of the required specification to meet safety requirements in accordance with Building Regulations Approved Document K.

All glass shall be suitable to meet anticipated wind loads according to BS6262-3:2005

All glass specified as a barrier or balustrade to protect from falls shall be in accordance with the requirements of Building Regulations Approved Document K and BS6180:2011

# All glazing shall be with triple glazed, hermetically sealed units manufactured to BS EN 1279-5:2005+A2:2010 with soft coat low emissivity coatings (ε ≤ 0.05) at positions 2 & 5 as measured from the exterior, Argon fill 90% and warm edge spacers (Ψ ≤ 0.040). U value of standard glazing shall be ≤ 0.60 W/m2K and g value ≥ 50%.

**SECURITY**

All windows where specified shall be Secured by Design accredited. *(required for Part Q compliance in England)*

**PASSIVHAUS SPECIFICATION**

The manufacturer shall demonstrate compliance with Passivhaus requirements by one of the following methods.

1. Proof of type certification by the Passivhaus Institut (PHI), Rheinstraße 44/46 64283 Darmstadt, Germany
2. Verifiable data, including thermal modelling in appropriate software and all necessary calculations, for the climate zone and location in question, to cover the following.
	1. Hygiene requirement, fRsi ≥ 0.70
	2. Comfort criterion, Uw inst. ≤ 0.85 W/m2K with reference glazing or Uw ≤ 0.80 W/m2K with reference glazing

The manufacturer shall supply suitable performance data for PHPP and data demonstrating compliance with Hygiene and Comfort requirements by one of the following routes.

1. By offering a PHI certified window, and inclusion of data in PHPP
2. By making available all thermal modelling and calculations to verify this data, or alternatively offering data verified by an appropriate third party acceptable to UK Passivhaus building certifiers.

**FRAME HEIGHT**

Maximum frame height for jambs and head of an opening window shall be less than or equal to 120 mm

**THIRD PARTY CERTIFICATION**

Windows shall be manufactured under independent UKAS approved third party certification.

**INSTALLATION**

All windows to be installed by FENSA registered installers.

All windows shall be mechanically fixed according to the manufacturer’s specification, plumb and square.

All windows shall be sealed to the external substrate according to the manufacturer’s specification or according to contractor’s choice, to be approved.

All windows shall be installed with proprietary airtightness tapes and mastics to achieve high levels of installation airtightness.

After installation all windows shall be checked for operation, and if necessary mechanisms shall be adjusted and lubricated prior to hand over to the client.

**COMPOSITE FRAMES**

All composite frames shall be assembled according to manufacturer’s specification and shall ensure that joints are weather and air tight.

**PROTECTION ON SITE**

All frames shall be stored on site according to manufacturer’s specification, and generally off the ground, fully protected from wind and rain under cover and adequately ventilated.

After installation site ambient moisture levels shall be maintained such that moisture content within frames at no times rises above 17%.

All windows shall be protected to avoid site damage at all times. Where plaster or other contaminants are deposited on frames they shall be removed immediately to avoid risk of site damage.

**PRODUCT STANDARD PROPERTIES**

Frame and sash depth

 98 mm

Frame and sash height (jambs and head)

 118 mm (inward)

 120 mm (outward)

Maximum sizes

Tilt and turn 1300mm x 2300mm

 Tilt only 2000mm x 950mm or 1300mm x 2300 mm

 Side hung outward 950mm x 1520mm

 Top hung outward 1300mm x 1650mm

 Fixed 2500mm x 2500mm

Finish

 Full factory treatment and finish from Remmers Baustofftechnik

Hardware

 Inward opening - Siegenia Aubi Titan tilt and turn system

 Outward opening – Stainless steel friction stays; espagnolette locking system

 Hoppe Tokyo handles

Glazing spacers

 Swisspacer Ultimate warm edge

Glazing

 52 mm triple glazed units, 2 x soft coat low-E, Argon fill 90%

 Standard configuration 4E-20A-4-20A-E4 (E – low E coating; A – Argon 90%)

 Standard Ug 0.52 W/m2K

Thermal insulation values

 Uw= 0.68 W/m2K (Redwood with insulation thermal break) Inward and outward opening

Uw = 0.73 W/m2K (Redwood) Inward & outward opening

 Uw = 0.83 W/m2K (Oak) Inward and outward opening

**PRODUCT PROPERTIES TO BE SPECIFIED**

Configuration

 [ Inward opening tilt and turn/tilt only ]

 [ Outward opening side/top hung ]

Sash & frame material

 [ FSC 100% fair-faced engineered Oak ]

 [ FSC 100% finger-jointed engineered Redwood ]

 [ FSC 100% finger-jointed engineered Redwood with Compacfoam CF200 thermal break ]

Interior finish

 [ Clear ]

 [ Painted, RAL \_\_ ]

 [ Woodstain Afromosia ]

 [ Woodstain Afzelia ]

 [ Woodstain Oak ]

 [ Woodstain Pine ]

 [ As exterior ]

Exterior finish

 [ Painted, RAL \_\_ ]

 [ Woodstain Afromosia ]

 [ Woodstain Afzelia ]

 [ Woodstain Oak ]

 [ Woodstain Pine ]

Glazing

 [ Standard ]

 [ Toughened ]

 [ Laminated (inner) (middle) (outer) ]

 [ Toughened (inner) (middle) (outer) ]

 [ Obscure, pattern \_\_\_ ]

 [ Self cleaning ]

 [ Solar control, g = \_\_\_ ]

 [ Acoustic ]

Glazing spacer

 [ Grey ]

 [ Black ]

 [ White ]

Gasket

 [ White ]

 [ Brown ]

 [ Beige ]

 [ Black ]

Handle type

 [ Locking ]

 [ Non-locking ]

Handle colour

 [ Matt chrome ]

 [ Polished chrome ]

 [ Gold ]

 [ White ]

 [ Black ]

Window board groove

 [ Window board groove required ]

 [ Window board groove not required ]

Extension sill

 [ None ]

 [ Timber, Oak, size \_\_\_ ]

 [ Aluminium, RAL \_\_\_, size \_\_\_ ] *(≤ 400mm)*

 [ Stone bed connector, RAL \_\_\_ ]

 [ Aluminium, Z45, RAL \_\_\_ ]

 [ Aluminium, Z60 RAL \_\_\_ ]

Glazing bars

 [ None ]

 [ Standard, with interstitial bars ]

 [ Old town, with interstitial bars ]

Trickle vents

 [ None ]

 [ Aluminium, 5000mm2 EA, RAL \_\_\_ ]

 [ Aluminium, 2500mm2 EA, RAL \_\_\_ ]

Security

 [ Standard ]

 [ Secured by Design ]

Accessories

 [ None ]

 [ Child safety restrictors ]

 [ Remote opening system ] *(specify details)*

**CERTIFIED PERFORMANCE**

Performance BS6375-1,2,3 (test certificates available)

 BS EN 12207 Air permeability Class 4 600 Pa

 BS EN 12208 Water tightness Class 9A 600 Pa

 BS EN 12210 Wind loads Class E2400 2400 Pa

 BS 6375-1:2009 Exposure category 2400 (top hung outward 1600)

 BS 6375-2:2009 Pass

 PAS24:2012 Pass

**CERTIFICATION**

* Secured by Design
	+ Standard: Licence
	+ Details: Licensed products – windows, single doors, double doors, sliding doors
* CEN Solutions
	+ Standard: CMS 3165 WDG Gold
	+ Details: third party certification
* Forest Stewardship Council
	+ Standard/Certificate: SA-CoC-001435
	+ Details: FSC 100% and FSC Mix products in European Redwood and Oak
* CE Marking
	+ Declaration of Performance <http://www.greenbuildingstore.co.uk/about/ce-mark/>