

ARR/C/3565.02b

20th October 2023

Yaqoob Malik
Footprint Design
9 Jesse Hartley Way
Liverpool
L3 0AB

Dear Yaqoob

Proposed Glazing, Globe House, M3 1LG

I understand that Planners have contacted you with the following request.

Condition 4 – Insulation scheme

The details of the selected glazing will need to be submitted to the acoustic consultant and a memo providing to confirm they are suitable for all facades based on their recommendations.

The glazing spec in our report was 30 dB R_w+C_{tr} . There was a small safety margin (3 dB) built into this to allow for workmanship, frames, etc. The datasheet from Calumen shows a performance as follows:-

 Acoustics	EN 12758
<i>Acoustic simulated values</i>	
R_w	37 (-2; -6) dB
R_a	35 dB
$R_{a,tr}$	31 dB
STC (ASTM E413)	37
OITC (ASTM E1332)	29

R_w 37(-2; -6) presumably means 37 dB R_w , -2 dB C and -6 dB C_{tr} . Therefore, the overall performance is 31 dB R_w+C_{tr} . This therefore meets the spec with a 1 dB margin (plus, as discussed above, the margin already built into the spec in the first place).

Please note that the spec sheet appears to be a calculated value rather than a measured value so, as long as they can guarantee the performance it should be fine. The full sheet is copied below.

I note also that you propose MVHR and no trickle vents. This provides a further safety margin of 1 to 2 dB.

So, in summary, the proposed glazing should meet the requirements with a reasonable margin.

I hope this covers everything but please call me with any queries.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'A Raymond', with a long, sweeping flourish extending from the end.

Andrew Raymond
Mobile : 07834 478475
Email : andrew.raymond@adcacoustics.co.uk

Calumen Datasheet



33.2 (18 Argon 90) 4

PLANITHERM TOTAL+ FG #5

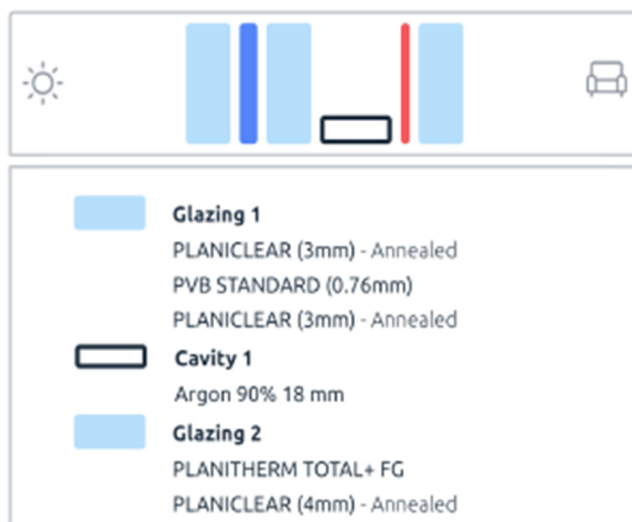
Computed by: JOE THOMAS

Computed on: 30/11/2023

Location: United Kingdom

Norms: EN410 (2011-04)

Glazing type



Simulated performance datas

Luminous Factors		CIE (15-2004)
Light Transmittance (TL)		78%
Outdoor Reflectance (RLe)		13%
Indoor Reflectance (RLi)		13%

Energy Factors		EN410 (2011-04)
Transmittance (TE)		58%
Outdoor Reflectance (Ree)		17%
Indoor Reflectance (Rei)		21%
Absorptance A1 (AE1)		16%
Absorptance A2 (AE2)		8%

Solar Factors		EN410 (2011-04)
Solar Factor (g)		0.66
Shading Coefficient (SC)		0.76

Thermal Transmission (Ug)		EN673-2011
Ug		1.2 W/(m ² .K)
Angle relative to the vertical		0°

Acoustics		EN 12758
Acoustic simulated values		
Rw		37 (-2; -6) dB
Ra		35 dB
Ra,ctr		31 dB
STC (ASTM E413)		37
OITC (ASTM E1332)		29

Color Rendering		CIE (15-2004)
Transmission (Ra)		98.7
Reflection (Ra)		92

Safety Class		EN 12600
Pendulum Body Resistance		1B1/NPD

Anti-Burglary		EN 356
Burglar Resistance		P1A/NPD

Manufacturing Sizes		
Nominal Thickness		28.8 mm
Weight		26 kg/m ²

Sustainability

Carbon footprint

The value is calculated regarding the composition computed based on the standard EN 15804+A2 (2019)

Global Warming Potential (GWP) - A1-A3 (kg, CO ₂ eq/m ²) European average	47
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Verified
Results
EN 410
EN 673
www.tuv.com
ID: 300003689

Calumen® calculates the photometric characteristics and thermal transmission of glass using calculation algorithms which comply with the following standards: the European standards EN 410 and EN 673, the international standard ISO9050, the Japanese standard JS R 3106/3107 and the Korean standard KS L 2514/2525. The functional output and calculation rules of Calumen® for standards EN 410 and EN 673 have been validated by TÜV Rheinland (report 89212153-01). The technical performances obtained according to these standards are provided for information only and are subject to amendment.

Only the values entered in the performance declaration available on the CE marking site of Saint-Gobain Glass are official.

The sound attenuation indices are measured under laboratory conditions according to the standards EN ISO 10140 and EN 12758. The calculated indices are provided for information only. The accuracy for Rw index lies within a range of +/-2dB. The glass thickness calculations comply with the 2012 version of the DTU39-P4 description. The USER is responsible for ensuring that the correct calculation hypotheses are entered and the DTU39 is applied appropriately for the project concerned.