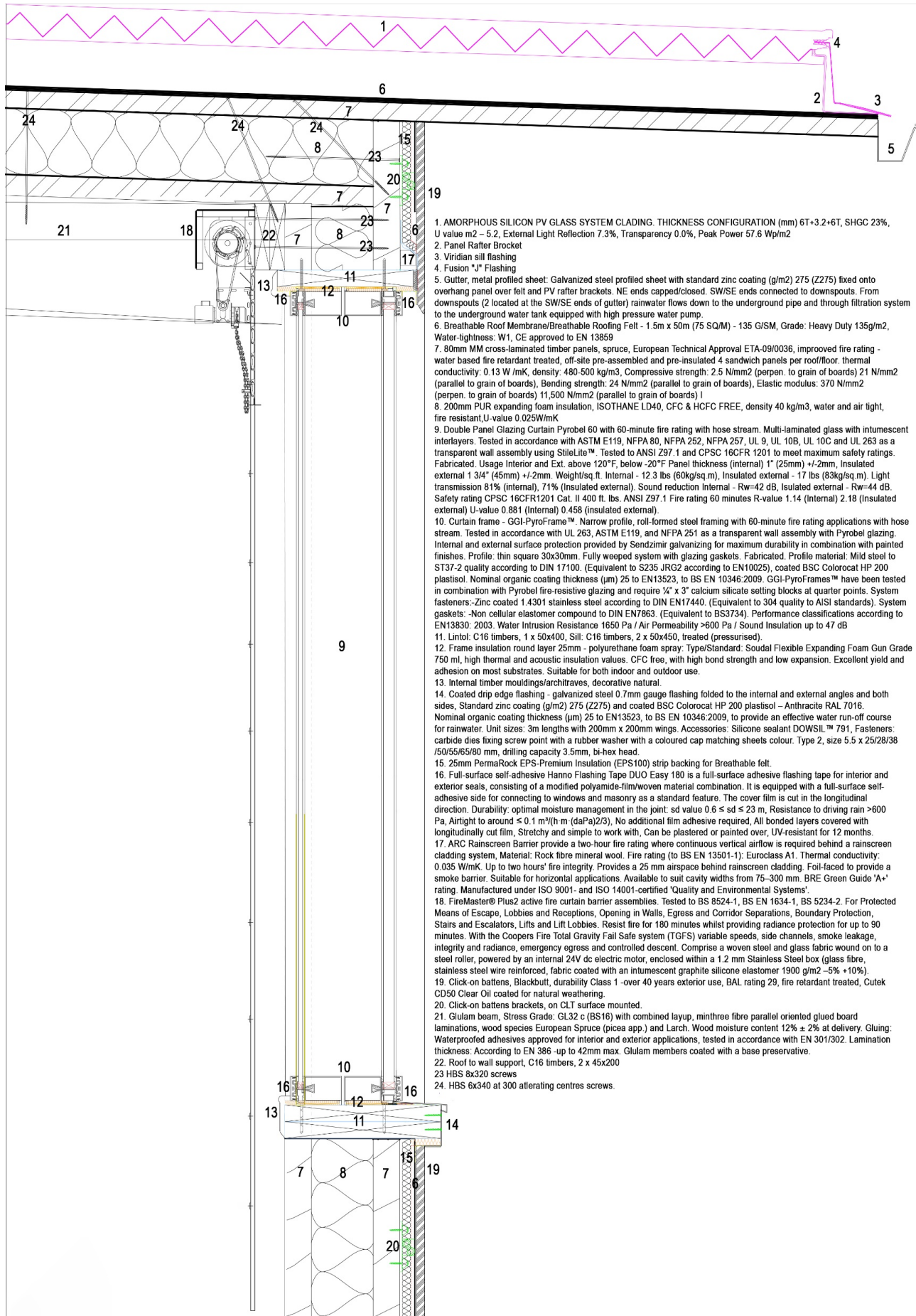


Detail – Sandwiched CLT Panels – Window – Eave Section



1. AMORPHOUS SILICON PV GLASS SYSTEM CLADDING. THICKNESS CONFIGURATION (mm) 6T+3.2+6T, SHGC 23%, U value m2 – 5.2, External Light Reflection 7.3%, Transparency 0.0%, Peak Power 57.6 Wp/m2
2. Panel Rafter Bracket
3. Viridian sill flashing
4. Fusion "J" Flashing
5. Gutter, metal profiled sheet: Galvanized steel profiled sheet with standard zinc coating (g/m2) 275 (Z275) fixed onto overhang panel over felt and PV rafter brackets. NE ends capped/closed. SW/SE ends connected to downspouts. From downspouts (2 located at the SW/SE ends of gutter) rainwater flows down to the underground pipe and through filtration system to the underground water tank equipped with high pressure water pump.
6. Breathable Roof Membrane/Breathable Roofing Felt - 1.5m x 50m (75 SQ/M) - 135 G/SM, Grade: Heavy Duty 135g/m2, Water-lightness: W1, CE approved to EN 13859
7. 80mm MM cross-laminated timber panels, spruce, European Technical Approval ETA-09/0036, improved fire rating - water based fire retardant treated, off-site pre-assembled and pre-insulated 4 sandwich panels per roof/floor. thermal conductivity: 0.13 W/mK, density: 480-500 kg/m3, Compressive strength: 2.5 N/mm2 (perpen. to grain of boards) 21 N/mm2 (parallel to grain of boards), Bending strength: 24 N/mm2 (parallel to grain of boards), Elastic modulus: 370 N/mm2 (perpen. to grain of boards) 11,500 N/mm2 (parallel to grain of boards) |
8. 200mm PUR expanding foam insulation, ISOTHANE LD40, CFC & HCFC FREE, density 40 kg/m3, water and air tight, fire resistant, U-value 0.025W/mK
9. Double Panel Glazing Curtain Pyrobel 60 with 60-minute fire rating with hose stream. Multi-laminated glass with intumescent interlayers. Tested in accordance with ASTM E119, NFPA 80, NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C and UL 263 as a transparent wall assembly using Stielite™. Tested to ANSI Z97.1 and CPSC 16CFR 1201 to meet maximum safety ratings. Fabricated. Usage Interior and Ext. above 120°F, below -20°F Panel thickness (internal) 1" (25mm) +/-2mm, Insulated external 1 3/4" (45mm) +/-2mm. Weight/sq.ft. Internal - 12.3 lbs (60kg/sq.m), Insulated external - 17 lbs (83kg/sq.m). Light transmission 81% (internal), 71% (Insulated external). Sound reduction Internal - Rw=42 dB, Insulated external - Rw=44 dB. Safety rating CPSC 16CFR1201 Cat. II 400 ft. lbs. ANSI Z97.1 Fire rating 60 minutes R-value 1.14 (Internal) 2.18 (Insulated external) U-value 0.881 (Internal) 0.458 (insulated external).
10. Curtain frame - GGI-PyroFrames™ Narrow profile, roll-formed steel framing with 60-minute fire rating applications with hose stream. Tested in accordance with UL 263, ASTM E119, and NFPA 251 as a transparent wall assembly with Pyrobel glazing. Internal and external surface protection provided by Sendzimir galvanizing for maximum durability in combination with painted finishes. Profile: thin square 30x30mm. Fully weeped system with glazing gaskets. Fabricated. Profile material: Mild steel to ST37-2 quality according to DIN 17100. (Equivalent to S235 JRG2 according to EN10025), coated BSC Colorcoat HP 200 plastisol. Nominal organic coating thickness (µm) 25 to EN13523, to BS EN 10346:2009. GGI-PyroFrames™ have been tested in combination with Pyrobel fire-resistant glazing and require 1/4" x 3" calcium silicate setting blocks at quarter points. System fasteners:-Zinc coated 1.4301 stainless steel according to DIN EN17440. (Equivalent to 304 quality to AISI standards). System gaskets:- Non cellular elastomer compound to DIN EN7863. (Equivalent to BS7374). Performance classifications according to EN13830: 2003. Water Intrusion Resistance 1650 Pa / Air Permeability >600 Pa / Sound Insulation up to 47 dB
11. Lintol: C16 timbers, 1 x 50x400, Sill: C16 timbers, 2 x 50x450, treated (pressurised).
12. Frame insulation round layer 25mm - polyurethane foam spray: Type/Standard: Soudal Flexible Expanding Foam Gun Grade 750 ml, high thermal and acoustic insulation values. CFC free, with high bond strength and low expansion. Excellent yield and adhesion on most substrates. Suitable for both indoor and outdoor use.
13. Internal timber mouldings/architraves, decorative natural.
14. Coated drip edge flashing - galvanized steel 0.7mm gauge flashing folded to the internal and external angles and both sides, Standard zinc coating (g/m2) 275 (Z275) and coated BSC Colorcoat HP 200 plastisol - Anthracite RAL 7016. Nominal organic coating thickness (µm) 25 to EN13523, to BS EN 10346:2009, to provide an effective water run-off course for rainwater. Unit sizes: 3m lengths with 200mm x 200mm wings. Accessories: Silicone sealant DOWSIL™ 791, Fasteners: carbide dies fixing screw point with a rubber washer with a coloured cap matching sheets colour: Type 2, size 5.5 x 25/28/38 /50/55/65/80 mm, drilling capacity 3.5mm, bi-hex head.
15. 25mm PermaRock EPS-Premium Insulation (EPS100) strip backing for Breathable felt.
16. Full-surface self-adhesive Hanno Flashing Tape DUO Easy 180 is a full-surface adhesive flashing tape for interior and exterior seals, consisting of a modified polyamide-film/woven material combination. It is equipped with a full-surface self-adhesive side for connecting to windows and masonry as a standard feature. The cover film is cut in the longitudinal direction. Durability: optimal moisture management in the joint: sd value 0.6 ≤ sd ≤ 23 m, Resistance to driving rain >600 Pa, Airtight to around ≤ 0.1 m³/(h·m (daPa)²/3). No additional film adhesive required, All bonded layers covered with longitudinally cut film, Stretchy and simple to work with, Can be plastered or painted over, UV-resistant for 12 months.
17. ARC Rainscreen Barrier provide a two-hour fire rating where continuous vertical airflow is required behind a rainscreen cladding system, Material: Rock fibre mineral wool. Fire rating (to BS EN 13501-1): Euroclass A1. Thermal conductivity: 0.035 W/mK. Up to two hours' fire integrity. Provides a 25 mm airspace behind rainscreen cladding. Foil-faced to provide a smoke barrier. Suitable for horizontal applications. Available to suit cavity widths from 75–300 mm. BRE Green Guide 'A+' rating. Manufactured under ISO 9001- and ISO 14001-certified 'Quality and Environmental Systems'.
18. FireMaster® Plus2 active fire curtain barrier assemblies. Tested to BS 8524-1, BS EN 1634-1, BS 5234-2. For Protected Means of Escape, Lobbies and Receptions, Opening in Walls, Egress and Corridor Separations, Boundary Protection, Stairs and Escalators, Lifts and Lift Lobbies. Resist fire for 180 minutes whilst providing radiance protection for up to 90 minutes. With the Coopers Fire Total Gravity Fail Safe system (TGFS) variable speeds, side channels, smoke leakage, integrity and radiance, emergency egress and controlled descent. Comprise a woven steel and glass fabric wound on to a steel roller, powered by an internal 24V dc electric motor, enclosed within a 1.2 mm Stainless Steel box (glass fibre, stainless steel wire reinforced, fabric coated with an intumescent graphite silicone elastomer 1900 g/m2 – 5% +10%).
19. Click-on battens, Blackbutt, durability Class 1 -over 40 years exterior use, BAL rating 29, fire retardant treated, Cutek CD50 Clear Oil coated for natural weathering.
20. Click-on battens brackets, on CLT surface mounted.
21. Glulam beam, Stress Grade: GL32 c (BS16) with combined layup, minthree fibre parallel oriented glued board laminations, wood species European Spruce (picea app.) and Larch. Wood moisture content 12% ± 2% at delivery. Gluing: Waterproofed adhesives approved for interior and exterior applications, tested in accordance with EN 301/302. Lamination thickness: According to EN 386 -up to 42mm max. Glulam members coated with a base preservative.
22. Roof to wall support, C16 timbers, 2 x 45x200
23. HBS 8x320 screws
24. HBS 6x340 at 300 altering centres screws.