# Certificate of Testing

CENTRE FOR WINDOW AND CLADDING TECHNOLOGY

**Certificate Number:** 06/24

**Date:** September 2006

**System:** **Façade EXAP-50**

**Manufacturer:** APA Systems Ltd
Unit 12, Parkmore Industrial Estate
Longmile Road
Dublin 12

**Tests performed:**

| | |
|---|---|
| Air permeability | ✔ |
| Watertightness – static | ✔ |
| Watertightness – dynamic | ✔ |
| Wind resistance – serviceability | ✔ |
| Wind resistance – safety | ✔ |
| Hose test | ✔ |
| Impact test | ✔ |

In accordance with 'Standard for systemised building envelopes' CWCT, 2006

Signed: ..... Test Witness

Signed: ..... Director

## Description of components tested

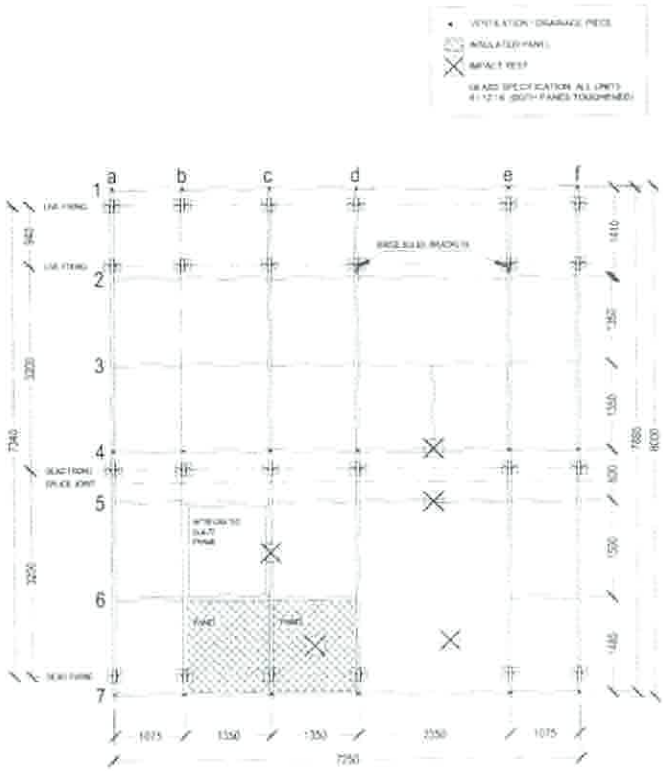
| | |
|---|---|
| Glazing system: | **Façade EXAP-50 Curtain Wall** |
| Framing material: | Aluminium 6063 |
| Glass units: | 6/12/6 sealed units both panes toughened |
| Spandrel panels: | 1.5 mm aluminium sheet with 20 mm plywood core |
| Mullion - Type:<br>Box size: | 86Z106<br>50 mm x165 mm |
| Transom - Type:<br>Box size: | 86Z202 and 86Z206<br>50 mm x 70 mm and 50 mm x 170 mm |
| Transom – connection: | Cleat fixed overlap joint |
| Drainage and ventilation: | Mullion drained and ventilated |
| Glazing seals:<br>Inner seal - Type:<br>Jointing:<br>Material: | <br>Gasket<br>Butt joint sealed with unionzement<br>EPDM |
| Mullion bracket: | Fabricated mild steel bracket |
| Mullion movement joint: | 500 mm reinforcing profile to suit mullion profile to provide structural connection. Drainage cover 86A708 sealed to front of mullion profiles over joint between ends of mullions and 10 mm gap between mullion sections sealed with silicone sealant. |

## Testing laboratory

| | |
|---|---|
| Testing laboratory | Wintech Engineering Ltd<br>Halesfield 2<br>Telford<br>TF7 4QH |
| Registration No: | UKAS No 2223 |
| Independent testing authority: | Wintech Engineering Ltd<br>Halesfield 2<br>Telford<br>TF7 4QH |
| Witness: | Alan Keiller<br>Centre for Window & Cladding Technology<br>University of Bath<br>Claverton Down<br>Bath BA2 7AY |
| Date of test: | 15 & 16 June 2006 |

## Summary of results

| | |
|---|---|
| Air permeability:<br>Pressure:<br>Leakage rate (max): | PASS<br>600Pa (infiltration and exfiltration)<br>0.23m³/hour/m² infiltration<br>0.25m³/hour/m² exfiltration |
| Watertightness - static:<br>Test pressure: | PASS<br>600Pa |
| Watertightness - dynamic: | PASS<br>((Dynamic aero engine and dynamic fan) |
| Wind resistance<br>Serviceability:<br>Test pressure: | <br>PASS<br>2400Pa |
| Wind resistance<br>safety:<br>Test pressure: | <br>PASS<br>3600Pa |
| Hose test: | PASS |
| Impact test: | PASS |
| Drop height: | 950mm |
| Impact energy: | 500Nm |
| | Impact tests carried out in accordance with BS EN 14019 at all specified locations. No damage observed. |




Test rig elevation