Certificate of Testing

Certificate Number:

Date:

System: **Corian Rainscreen**

System supplier:

DuPont de Nemours International Sàrl
2, chemin du Pavillon
Le Grand-Saconnex
CH-1218 Geneva
Switzerland

Tests performed:

Watertightness - dynamic	✓
Wind resistance - serviceability	✓
Wind resistance - safety	✓
Soft body impact	✓

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

Signed: . . . . . Test Witness

Signed . . . . . Director

Description of components tested

Rainscreen system:	Dupont Corian	
Panel material:	12 mm flat corian panels	
Panel size:	850 mm wide x 2635mm high clipped to horizontal rails on 650mm grid	1570mm wide x 869mm high bonded to vertical rails
Horizontal joint*:*	Open, 5mm wide	Open, 5mm wide
Vertical Joint:	Open, 5mm wide	No vertical joints in test specimen
Support system:	Nvelope NV3 system comprising: Vertical aluminium rails at 600mm centres fixed to back wall with aluminium brackets at 625mm spacing. Horizontal rails at 650mm centres screwed to vertical rails.	Nvelope NV2 system comprising vertical rails fixed to back wall with aluminium brackets at 625 mm centres.
Fixings:	Nvelope NV3 clips attached to back face of panel by Keil anchors.	Panels fixed to vertical rails with continuous bead of Sika tack adhesive
Drainage and ventilation:	Drained and ventilated rainscreen cavity	
Backing wall:	Framing: Steel studs on same centres as cladding rails Sheeting on cavity face: Plywood Sheeting on inner face: None	

Testing laboratory	Technology Centre Vinci Construction UK Ltd Stanbridge Road Leighton Buzzard Bedfordshire LU7 4QH
Registration No:	UKAS No 0057
Independent testing authority	Technology Centre Vinci Construction UK Ltd Stanbridge Road Leighton Buzzard Bedfordshire LU7 4QH
Witness:	Alan Keiller CWCT University of Bath Claverton Down Bath BA2 7AY
Date of test:	June 2012

SUMMARY OF RESULTS

Watertightness - dynamic:	PASS	
Note:	During the test water entered the rainscreen cavity wetting the face of the back wall. The amount of water reaching the face of the insulation 80 mm behind the rainscreen was sufficient to wet the surface and cause water to run down. The face of the insulation was protected by a breather membrane and no water was detected behind the breather membrane. Any materials that would be adversely affected by the presence of water should be protected by a breather membrane or more substantial waterproof layer. Flashings are also required to drain water from the bottom of the cavity.	
Wind resistance:	PASS	
Serviceability test pressure:	2400Pa	
Safety test pressure:	3600Pa	
Impact test to CWCT TN 76	Soft body	Hard body
Impact energy:	500Nm	10Nm
Serviceability classification	Class 1	Class 1
Safety classification	Negligible risk	Negligible risk
	Serviceability performance is given in five classes. Class 1 is the highest performance class and indicates that no visible damage was caused by the impact. Safety performance is given in four classes. Negligible risk is the highest performance class and indicates that no visible damage was caused by the impact.	

Wind resistance - serviceability test.

Result:	PASS
Pressure:	2400 Pa

Deflections

Panel	**Span** (L) (mm)	**Measured Deflection (d)** (mm)	(mm)	**Permitted deflection** (L/90) (mm)
2635 x 850	650	1.6	-4.2	7.2
869 x 1570	600	3.1	-3.2	6.7

Notes

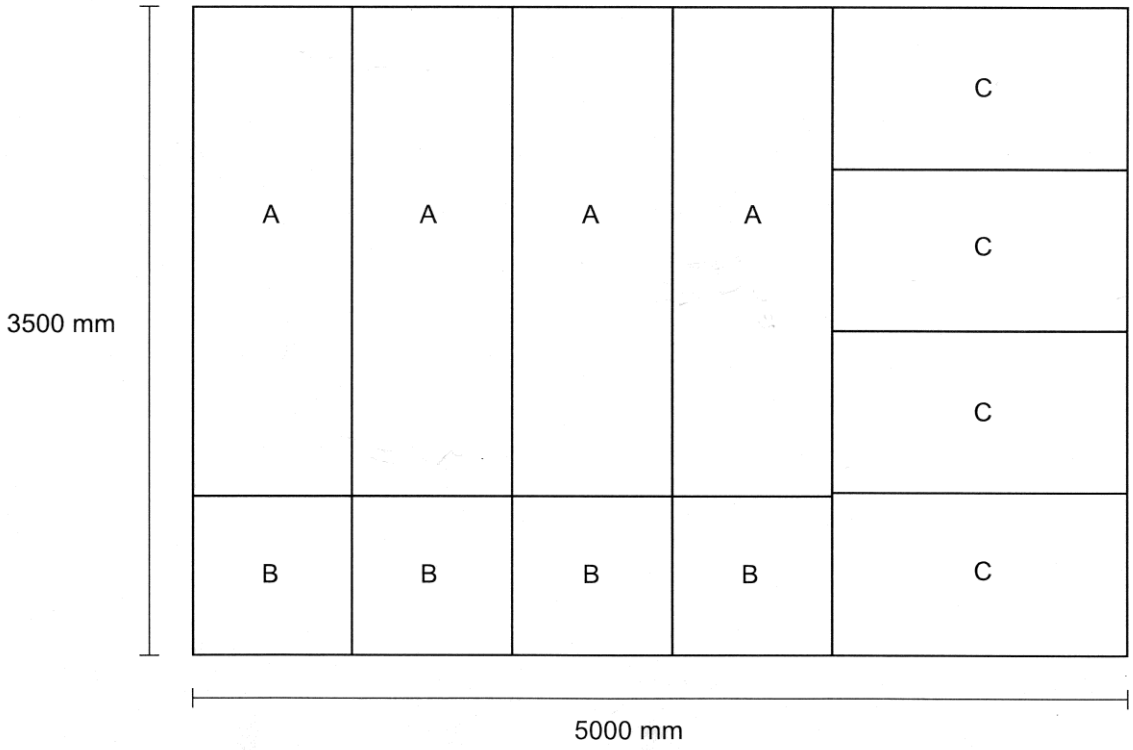
1. For the 2635x 850 panel, deflection was measured at midspan between fixing clips and span has been taken as the distance between clips
2. For the 869x 1570 panel, span is taken as the distance between rails and deflection was measured at midspan
3. Deflection given is the total movement at centre of span. The true deflection will be slightly less due to displacement at supports
4. Residual deflection after unloading was no greater than 0.2mm indicating that movements were in the elastic range

PANELS:

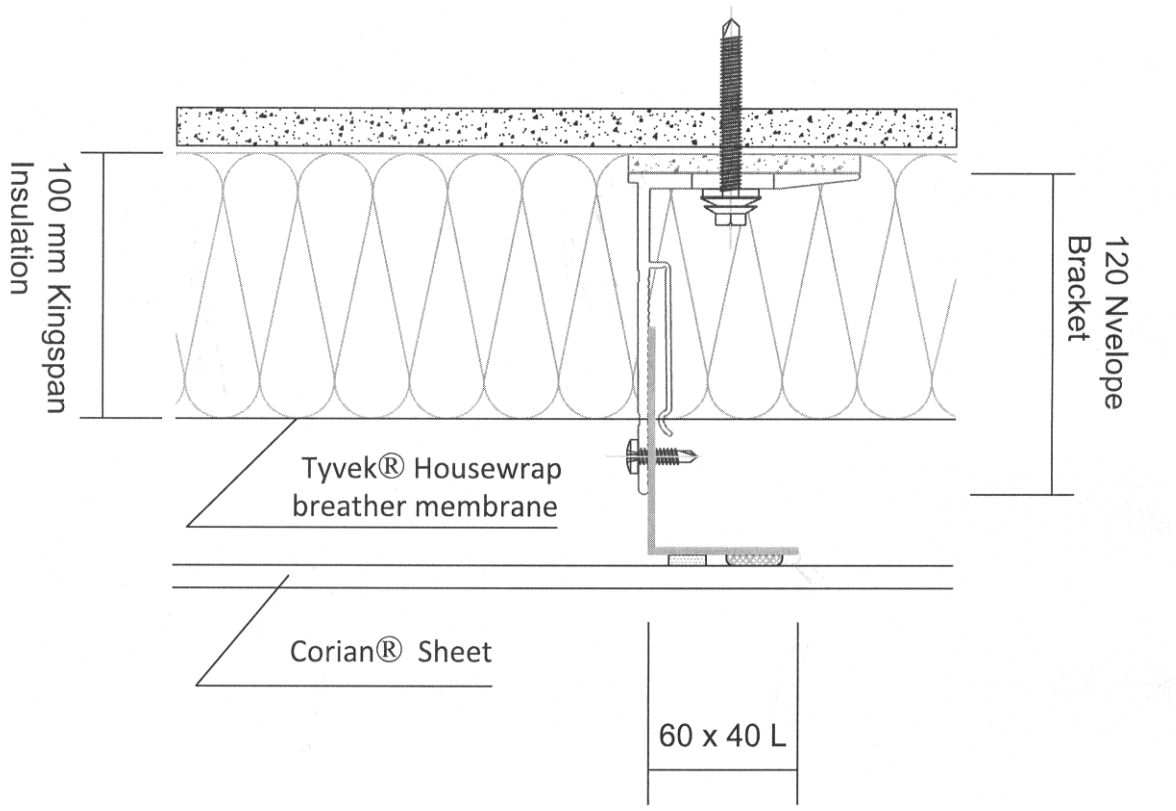
A = 2635 x 850 mm

C = 869 x 1570 mm

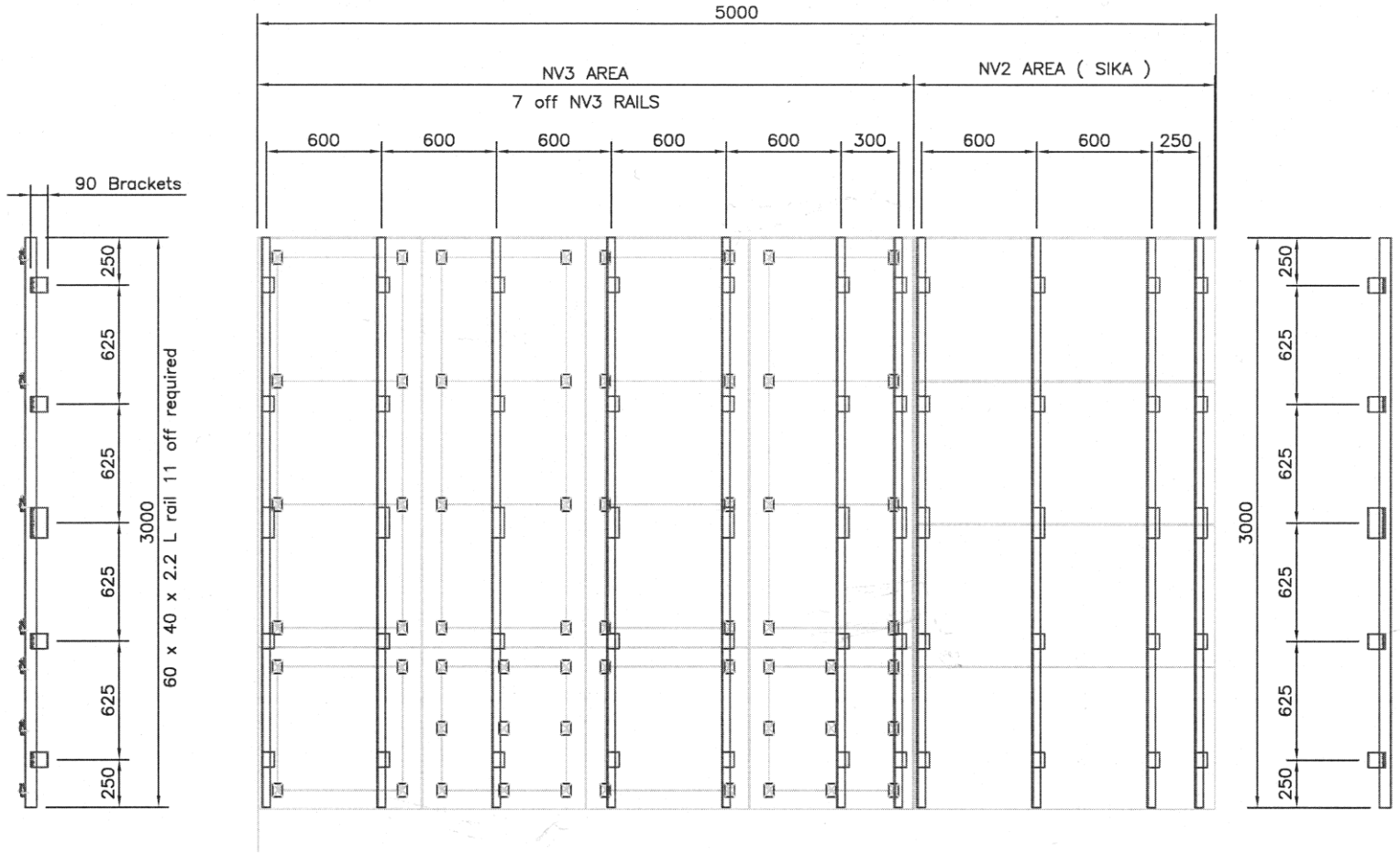
Open Seem = 5 mm



Elevation of test wall showing layout of panels



Horizontal section through Nvelope NV2 support system with panel bonded to rail using Sika Tack system.



Elevation of wall showing support rails (centre). Vertical section to left of elevation shows area with mechanically clipped panels and horizontal rails. Vertical section to right of elevation shows area with bonded panels which does not require horizontal rails

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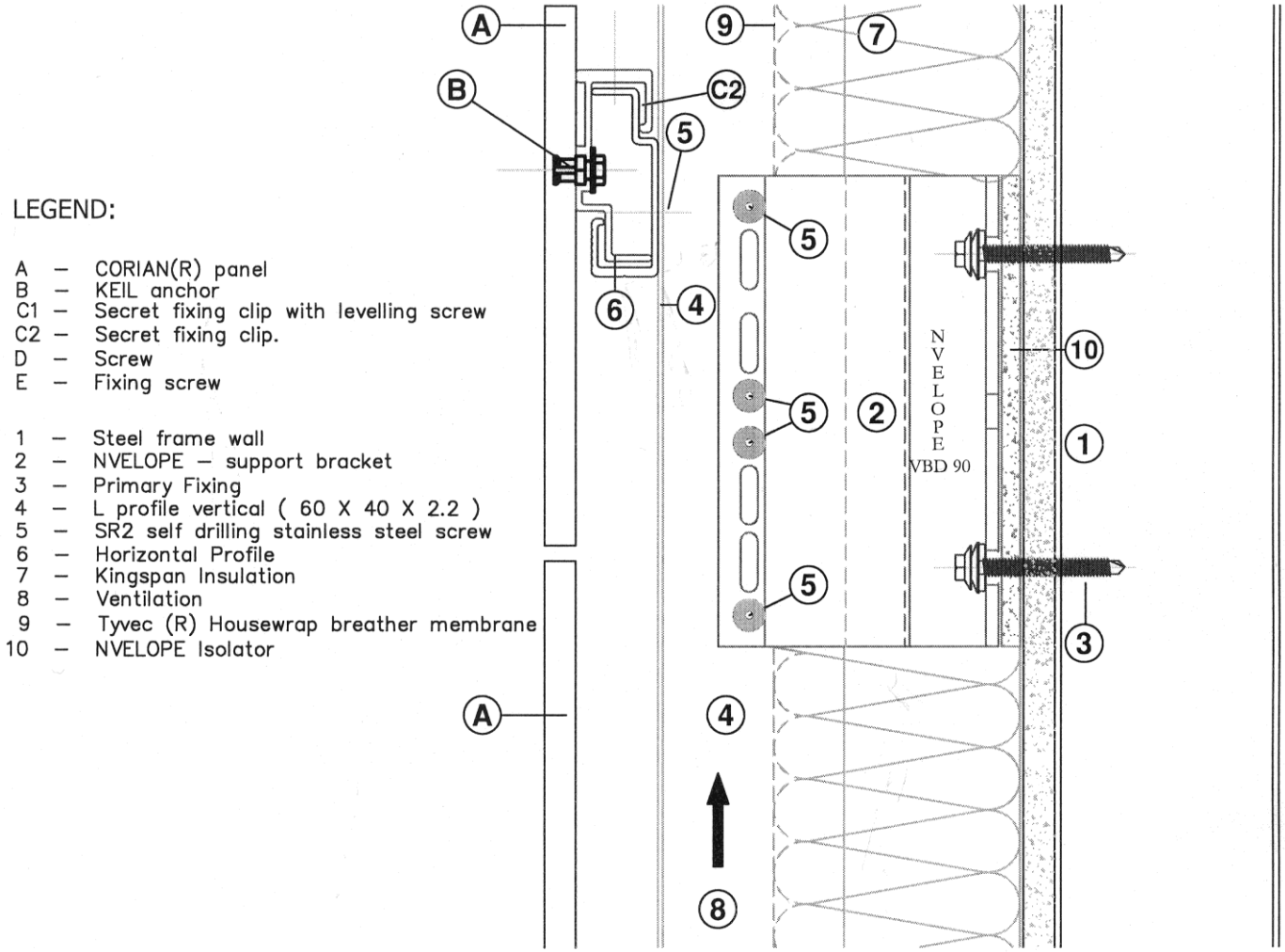

Vertical section through Nvelope NV3 support system. Figure shows fixed point bracket, rails fixed to bracket at moving point using slotted holes. The top clip on the panel was provided with levelling screw

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