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REPORT NO. F2557/7242

**TESTING OF PEDESTAL ADHESIVES TO PSA MOB PF2/SPU MARCH
1992 RAISED ACCESS FLOORS**

T15.00 PEDESTAL STRENGTH – HORIZONTAL LOAD
T42.00 PEDESTAL STRUCTURE AND FIXINGS TEST

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1.0 SUMMARY

- 1.1 Raised access floor pedestals bonded with 3 types of pedestal adhesive have been subjected to the T15.00 Pedestal strength – Horizontal load and T42.00 Pedestal structure and fixings tests of the performance specification PSA MOB PF2 PS/SPU Raised access floors.

All 3 adhesives complied with the requirements of both tests, with the pedestals remaining bonded to the substrate after testing.

2.0 BRIEF

- 2.1 To assess the performance of 3 pedestal adhesives, when subjecting pedestals bonded with them to T15.00 Pedestal strength – Horizontal load and T42.00 Pedestal structure and fixings tests, in accordance with the performance specification PSA MOB PF2 PS/SPU for raised access floors.
- 2.2 Testing was carried out at BTL test labs.
- 2.3 This work was authorised by Star Uretech order 8412. BTL Confirmation form refers.

3.0 SAMPLES RECEIVED

- 3.1 The following materials were received;
Pedestal adhesive
Referenced Uretech PA1. 1 part.
Referenced Uretech Pedfix1. 1 part.
Referenced Uretech KPA1. 1 part.

Pedestals

Kingspan Access Floors Ltd Alpha V pedestals to provide; 600mm void
450mm void
300mm void

4.0 TEST PROGRAMME

- 4.1 A concrete floor at BTL labs was cleaned and prepared for pedestal installation.
- 4.2 The floor pedestals were bonded to the concrete substrate using the 3 pedestal adhesives submitted. The pedestals were adjusted to provide the void heights of 600mm, 450mm and 300mm.
- 4.3 The T15.00 tests were carried out 48hrs after installation as in accordance with the PSA MOB specification. The permanent deformation of the pedestals was calculated after removal of the test load and the pedestal bases inspected for signs of any detachment.

The T42.00 “Pedestal structure and fixings test” was carried out 120hrs (5 days) after the pedestals were installed using the ‘swing bag’ test apparatus specified.

5.0 RESULTS**5.1 T15.00 Pedestal strength – Horizontal load****5.2 PA1 adhesive**

Pedestal height, mm	Load (kg) for 90Nm	Permanent deformation, mm	Permanent deformation, mm/100mm height	PSA MOB specified maximum
600	15.30	3.68	0.61	1.00mm/100mm height
600	15.30	5.55	0.93	
450	20.39	1.22	0.27	
450	20.39	3.23	0.72	
300	30.58	1.42	0.47	
300	30.58	1.97	0.66	
Debonding – there was no detachment of any of the pedestals from the substrate during testing				No detachment

5.3 Pedifix1 adhesive

Pedestal height, mm	Load (kg) for 90Nm	Permanent deformation, mm	Permanent deformation, mm/100mm height	PSA MOB specified maximum
600	15.30	3.49	0.58	1.00mm/100mm height
600	15.30	3.90	0.65	
450	20.39	3.48	0.77	
450	20.39	1.95	0.43	
300	30.58	1.50	0.50	
300	30.58	1.85	0.62	
Debonding – there was no detachment of any of the pedestals from the substrate during testing				No detachment

5.4 KPA1 Adhesive

Pedestal height, mm	Load (kg) for 90Nm	Permanent deformation, mm	Permanent deformation, mm/100mm height	PSA MOB specified maximum
600	15.30	3.35	0.56	1.00mm/100mm height
600	15.30	2.00	0.33	
450	20.39	3.23	0.72	
450	20.39	4.15	0.92	
300	30.58	1.87	0.62	
300	30.58	1.35	0.45	
Debonding – there was no detachment of any of the pedestals from the substrate during testing				No detachment

5.5 Conditions; temperature 18.5°C and humidity 49% RH

5.6 T42.00 Pedestal strength – Horizontal load

Adhesive type	Pedestal height, mm	Result
PA1	600	No de-bonding or pedestal failure. Pass.
	600	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.
Pedfix1	600	No de-bonding or pedestal failure. Pass.
	600	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.
KPA1	600	No de-bonding or pedestal failure. Pass.
	600	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	450	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.
	300	No de-bonding or pedestal failure. Pass.

5.7 Conditions; temperature 18.5°C and humidity 49% RH.

5.8 All pedestals remained firmly bonded to the concrete substrate after testing and therefore satisfy the requirement of the PSA MOB.

Reported by



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