



## **Raised Access Floors**

### **Technical Guidance**

**~ B.I.T.S. ~ TG 01: 2003 (Draft)**

---

BUILDING INVESTIGATION AND TESTING SERVICES (SURREY) LTD

Trowers Way, Holmethorpe Industrial Estate, Quarryside Business Park, Redhill, Surrey, RH1 2LH

TEL. 01737 765432 FAX. 01737 765431 [www.bits-testlab.co.uk](http://www.bits-testlab.co.uk)

Email. Bitslab@btconnect.com

Registered in England 4456510

Registered Office: Address above.

## **FOREWORD**

This technical guide gives a general commentary on the various aspects of the Raised Access Floors in the light of the introduction of BS EN 12825: 2001. In TG01.00 to TG14.00, there is a 'Check List' to enable a specifier to select a suitable floor followed by guidance on Installation and Site Control.

Finally two suggested Particular Project Specifications are given the first for use with PSA MOB PF2 PS/SPU specification and the second for the use with BS EN 12825: 2001

**Compliance with any British, European or PSA standard or ~ B.I.T.S. ~ technical guidance does not of itself confer immunity from legal obligations.**

## **Contents**

## **PAGE**

### **SECTION TG**

Technical Guidance 4

### **SECTION PPS**

Particular Project Specifications 53

### **APPENDIX A**

Rolling load test method 83

### **APPENDIX B**

On site air leakage test method 86

# Contents

# PAGE

## Section TG

### TECHNICAL GUIDANCE

TG0.00	INTRODUCTION	9
TG0.01	Reason for this guidance	9
TG0.02	Using the guide	10
TG0.03	Definitions	11
TG1.00	SCOPE	11
TG2.00	HISTORY OF RAISED ACCESS FLOOR SPECIFICATIONS	12
TG2.01	PSA specification MOB PF2 PS/SPU	12
TG2.02	European Standard BS EN 12825; 2001	12
TG2.03	National Building Standard K41	13
TG3.00	DEVELOPING A PARTICULAR PROJECT SPECIFICATION	13
TG3.01	General	13
TG3.02	Using Standard specifications (MOB, BS EN, NBS)	13
TG4.00	STRUCTURAL REQUIREMENTS	14
TG4.01	Selecting a suitable structural grade	14
TG4.02	Equivalent structural performance grade	15
TG4.03	Cut panels	16
TG4.04	Air terminal devices (Grilles and swirls)	17
TG4.05	Pedestrian dynamic requirements	17
TG4.06	Rolling loads	17
TG4.07	Creep	18
TG4.08	Pedestals	18
TG4.09	Stringers	19
TG4.10	Supplementary support structures, perimeters and ramps	19
TG4.11	Loading in corridors	19
TG4.12	Weight of the system	20
TG4.13	Environmental conditions	20

**TECHNICAL GUIDANCE****PAGE**

TG5.00	DIMENSIONAL REQUIREMENTS	20
TG5.01	Panel dimensions	20
TG5.02	Panel interchange ability	20
TG5.03	Panel location	21
TG5.04	Gaps between panels	21
TG5.05	Air leakage rate	22
TG5.06	Height	21
TG5.07	Pedestal bases	21
TG6.00	FIRE AND SAFETY REQUIREMENTS	22
TG6.01	General	22
TG6.02	Relevant current British Standards	22
TG6.03	Spread of flame	23
TG6.04	Panel cladding	24
TG6.05	Structural materials	24
TG6.06	Cavity barriers	24
TG7.00	ELECTRICAL REQUIREMENTS	24
TG7.01	Earthing and bonding	24
TG7.02	Electrostatic control	25
TG8.00	MANUFACTURE AND QUALITY CONTROL	25
TG8.01	General	25
TG8.02	Quality assurance	26
TG9.00	SUPPLY DELIVERY AND STORAGE	26
TG9.01	Transportation	26
TG9.02	Off loading	26
TG9.03	Storage on site	26

**TECHNICAL GUIDANCE****PAGE**

TG10.00	INSTALLATION AND SITE CONTROL	27
TG10.01	Dimensional co-ordination	27
TG10.02	Installation programme	27
TG10.03	Structural sub floor	27
TG10.04	Cleaning and sealing the sub floor	27
TG10.05	Fire stopping	28
TG10.06	Sample area	28
TG10.07	Validation tests	28
TG10.08	Pedestals fixing tests	29
TG10.09	Pedestal fixing method	30
TG10.10	Setting out	30
TG10.11	Overall levels	30
TG10.12	Panel levels	31
TG10.13	Pedestal adjustment	31
TG10.14	System fit	31
TG10.15	Panel fit and location	31
TG10.16	Squeaking	32
TG10.17	Panel rocking, rattles and other noises	32
TG10.18	Perimeter details	32
TG10.19	Threshold detail	33
TG10.20	Ramps and stairways	33
TG10.21	Use by following trades	33
TG10.22	Cleaning	34
TG10.23	Inspection of complete installation	34
TG11.00	FLOOR FINISHES	34
TG11.01	Factory bonded finishes	34
TG11.02	Loose lay finishes	35
TG11.03	Other methods of carpet fixing	35

**TECHNICAL GUIDANCE****PAGE**

TG12.00	DURABILITY	35
TG12.01	Protective finishes	35
TG12.02	Protective finishes in computer rooms	36
TG12.03	Life of components	36
TG12.04	Performance in use	36
TG13.00	TESTING	37
TG13.01	Type testing	37
TG13.02	Type testing to BS EN requirements	37
TG13.03	Type testing to PSA requirements	37
TG13.04	Validation testing	38
TG14.00	TECHNICAL ADVICE	38
TG15.00	CHECKLIST	38
TG15.01	Subject identification	38
TG15.02	Check lists	39
TG15.03	Appendix A - Rolling Load Test	83
TG15.04	Appendix B - The On-site Air Leakage Test	87
TG15.05	Bibliography and other Publications referred to.	90