

K41 RAISED ACCESS FLOORS

To be read with Preliminaries/General conditions.

TYPES OF RAISED ACCESS FLOOR**130 RAISED ACCESS FLOOR to:****Drawing references:**

- Manufacturer: Kingspan Access Floors Limited, Burma Drive, Marfleet, Hull, HU9 5SG. Tel +44 (0)1482 781701. www.kingspanaccessfloors.co.uk
- Product reference: RG3 Class 3
- Level of access: Full access.
- Shape, size and mass of fixed floor panels: Submit proposals.
- Floor panel size: 600 x 600 x 31mm.
- Structural grade: BS EN 12825 Class 3 and is given a classification of 3/A/3/2 when tested in-line with this specification.
- Installed mass of system (maximum): 31 kg/m².
- Height:
 - Finished raised access floor height above subfloor: mm
 - Under-floor clear void height: (LESS 31mm)mm subject to slab survey and buildup of finishes and necessary bridging where required.
 - Limits on maximum and minimum heights: limitations are under 65mm and over 1000mm.
- Floor finishes: As specified in Clause M50, M40 & K21.
- **Other requirements:**
 - Oversize panels to be used at perimeters as necessary in order to maintain minimum cut panel size.

GENERAL**209 STANDARDS**

- Raised access flooring system: To BS EN 12825.
- Clauses which do not apply:
- Quality management system: BS EN ISO 9001:2015
- Environmental: BS EN ISO14001:2004
- Sub-contractor to have - Health and safety: BS OHSAS 18001: 2007
- Accreditation to the FSC Chain of Custody for the manufacture and installation of raised access floor panels.
- Manufacturer to have an EPD in accordance with ISO 14025 and 15804.
- All standards are to be submitted at tender stage.
- Access floor manufacturer's facilities shall be: BS EN ISO14001 certified.
- Access floor manufacturer and approved sub-contractor to hold FSC Chain of
- All standards are to be submitted at tender stage.

211 GENERAL PERFORMANCE

- Completed installation: Clean and stable. Free from bounce and vibration. No lipping between floor panels.

212 STRUCTURAL PERFORMANCE

Static Loads:

- Uniform distributed loads: 15.0 kN/m².
 - Point load; 2.67kN based on an Ultimate load greater than 8kN which is a class 3 when tested in-line with BS EN 12825.
 - Area of load; 25 x 25mm
 - Deflection (maximum): Class A, 2.5 mm
 - Safety Factor; 3
- Dynamic loading:
- Absorption of hard body impacts; required to BS EN 12825
 - Absorption of soft body impacts; required to BS EN 12825
 - Rolling loads not required

215 FIRE PERFORMANCE

- Reaction to fire:
 - Standard BSEN 13501-1
 - Class Bfl – S1: B – s2,d0
- Resistance to fire:
 - Standard BSEN 13501-2
 - R30r/RE30r

216 SOUND TRANSMISSION

- Laboratory system test:
 - Standard: To BS EN ISO 10848-2:2006.
 - Airborne sound insulation 38dB
 - Impact sound insulation 69dB
 - Test report: Submit.

COMPONENTS

220 SAMPLES

- General: Submit representative samples of the following: As per client's requirements.

224 FLOOR PANELS: RG3 600 x 600 x 31mm

- Tolerances:
 - To BS EN 12825 Class 3
- Casing material: steel
- Casing finish: Galvanised Steel
- Core material: high density particle board
- Floor panel fixing: Gravity lay
- Floor panel location method: Positive.
- Labeling:
 - Nonstandard panels: Identify for relocation purposes.
 - Service identification labels: Provide self-adhesive labels to identify under-floor services and their direction. Fix to the visible surface of the floor panel, and under carpet finish if any by others.

225 PEDESTALS:

Kingspan Access Floors - Europed II (65mm-380mm FFH)

- Alpha V/Alpha III (65mm-1200mm FFH)

- Pedestal fixing:
- Adhesive fixing:
 - Two/Four point mechanical fixing for floors over 450mm
 - Adhesive: Kingspan KPA1 Ultra, one component, solvent free polyurethane system.
- Adjustability:
 - Locking: Required.
- Additional pedestals: At door thresholds, columns and other cut panel edges as applicable.
- Pedestal materials: All zinc plated steel.

228 ACCESSORIES

- Service outlet boxes:
 - Type: _____
 - Rate: _____
 - Size (length x width): _____ mm.
 - Number of power outlets per box: _____
 - Number of data outlets per box: _____
 - Number of phone outlets per box: _____
 - Number of ports per box: _____
 - Installation: Drop-in.
 - Lids: _____
 - Frames: _____
 - Structural capacity: _____ kN/m².
- Air handling accessories: _____
 - Adjustability of grilles: _____
- Level change accessories: _____
- Other accessories: _____

INSTALLATION

230 CONTROL SAMPLES

- General: Complete areas of finished work in the following locations: _____

235 **SUBFLOOR** _____

- **Type:** _____
- **Preparation:** _____
- Cleanliness: Clean before installation and keep clean during installation.

240 PREPARATION

- Setting out: Before installation of services, indelibly mark pedestal positions.
- Fixtures: Before installation, complete the fixtures which floor panels are to be cut around or which supports are to bridge.
- **Bridging structures - supplementary supports see Kingspan standard details KAF/SD/ 605 and KAF/SD/303**

250 ENVIRONMENTAL CONDITIONS

- General:
 - Dry, well ventilated, not subject to extremes of temperature or humidity, and free from rapid variations of temperature or humidity.
 - RH of air (maximum): 75%.
 - RH of surrounding walls (maximum): 75%.
- Subfloors:
 - RH (maximum): 75%. Test to BS 8201 using an accurately calibrated hygrometer.
 - Temperature (minimum): 5°C.

280 DUSTPROOFING

- Sealer: Colour tinted. Kingspan 2640 & 2641 water based sealer. Compatible with materials used to pack and/or fix pedestals.
- Sealing:
 - Extent: Concrete and masonry surfaces within raised access floor void.
 - Preparation: Surfaces to be sealed must be clean, dry and free from dust, grease and other contaminants.
 - Number of coats: Two.
 - First coat: Apply before pedestals are erected.
 - Second coat: Different tint to first coat. Apply after completion of services and other associated work.

330 CUT FLOOR PANELS

- Size (minimum): 300mm half width x half length.
- Burrs and rough edges: Make smooth.
- Edge sealer: Class 0 spread of flame rated aluminium foil self adhesive tape.
- Edge sealing: Seal exposed cut edges of floor panels which have moisture sensitive or combustible cores.

345 RAISED ACCESS FLOOR LEVELS

- Recommended deviations in level:
 - Over 5 m: ± 1.5 mm.
 - Overall: ± 6 mm.

350 PERIMETERS

- Expansion gaps:
 - Size: 20 x 9mm
 - Location: At abutments.
- Expansion gap filling:
 - Filler type: Resilient closed cell.
 - Filling: Before fixing skirtings and cover strips.

360 CAVITY BARRIERS

- Construction:
 - Material: AIM fire barrier, rock wool slab with class O foil.
 - Fire resistance to BS 476-20: 30 minutes
- Performance: Permanently stable, continuous, and an effective barrier to smoke and flame.

- Distribution:
 - Centres (maximum): 20m
 - Subdivided areas (maximum): 64m².
- Fixing: Fix securely to subfloor, at joints and as necessary.
- Floor panels: Firmly secure floor panels above cavity barriers.
- Gaps between cavity barriers and other elements: Seal with mineral wool or other suitable material.

370 LEVEL CHANGES

- **Drawing references:** _____
- **Ramps and steps:**
 - Performance: Match performance of associated raised access floor.
 - Proposals: Submit details.
- Balustrade structural and safety requirements: To BS 6180.

390 ELECTRICAL CONTINUITY AND EARTH BONDING

- Substantial metal parts of raised access floor: Electrically continuous and fully earth bonded.
 - Standard: To BS 7671:17th edition.
 - Bonding methods: Submit proposals.
 - Earthing methods: Submit proposals.
- **Rooms used for electronic data processing equipment:** _____
- Earth bonding connection points: Determine number and location. Provide connectors.
- Total resistance of earth fault loop (maximum): Resistance required to operate earth fault protection devices to BS 7671:17th edition.
- Electrical continuity and earth bonding tests:
 - General: Test complete raised access floor.
 - Points for testing: Randomly selected pedestals, stringers, tops and bottoms of floor panels.

400 INTEGRAL FINISHES ELECTRICAL RESISTANCE TESTS

- General: Test complete raised access floor.
- Testing agent: Qualified electrician.
- **Location:** _____

COMPLETION**420 TOOLS**

- Floor panel lifting devices: At Practical Completion, supply one set of suitable devices for each type of raised access floor finish installed. Train designated personnel in their use.
- Pedestal locking: At Practical Completion, supply one set of tools for releasing pedestal locking.

430 USER INSTRUCTIONS

- Manual contents: Include the following:
 - Correct method for lifting and replacing floor panels and stringers.
 - Servicing: Limitations on sequence, number and positions of floor panels and stringers which can be removed safely at one time.

- Permissible loads: With guidance on use of spreader plates when shifting heavy equipment and subsequent maintenance.
- Methods for installing cabling and ducts, to prevent damage to supporting structure.
- Cleaning methods: For floor panels and integral finishes.
- Floor panel covering renewal: Method for replacement of integral floor panel coverings.
- Pedestal adjustment and locking.
- Maintenance: Recommended methods and frequency. Minimum maintenance-free life of raised access floor system. Minimum maintenance-free life of replaceable parts where this differs from that of the whole system. Minimum period during which replaceable components will be available.
- Installation instructions, including COSHH Assessment.

440 SPARES

- General: At Practical Completion, supply the following:
 - RG3 Class 3 floor panels.....(Number)
 - Alpha V pedestals.....(Number)
 - Europed II Pedestals.....(Number)

450 CLEANING

- Subfloors: After completion, thoroughly clean accessible areas of subfloors and leave free of dust and debris.
- Raised access floor: Before delivery of items carried by floor, clean thoroughly.