

The Concrete Society's TR34 Free Movement (3rd Edition)

Classifications

The survey data is analysed and compared with the permissible limits for Properties II and IV given in Table 4.2.

Table 4.2: Permissible limits on Properties II and IV in free-movement areas.

| Floor classification | Typical floor use | Property II limit (mm) | | Property IV limit (mm) | |
|----------------------|---|------------------------|------|------------------------|------|
| | | 95% | 100% | 95% | 100% |
| FM 1 | Where very high standards of flatness and levelness are required. Floors to FM 1 classification may need to be constructed using long strip methods. See Section 2.2.3 | 2.5 | 4.0 | 4.5 | 7.0 |
| FM 2 | Buildings containing wide aisle racking with stacking or racking over 8 m high, free-movement areas and transfer areas | 3.5 | 5.5 | 8.0 | 12.0 |
| FM 3 | Buildings containing wide aisle racking with stacking or racking up to 8 m high Retail and manufacturing facilities | 5.0 | 7.5 | 10.0 | 15.0 |

For all classifications, all points surveyed should be within 15 mm from datum.

In speculative construction, the developer is advised to build to as high a standard as possible. Surface regularity specification FM 2 (Special), see Table 4.4, is suggested to reduce the amount of grinding required for Category I use once the defined-movement areas have been defined.

Table 4.4: Permissible limits on Properties II and IV in floors for possible conversion to Category 1.

| Floor classification | Floor use | Property II limit (mm) | | Property IV limit (mm) | |
|----------------------|--|------------------------|------|------------------------|------|
| | | 95% | 100% | 95% | 100% |
| FM 2 (Special) | Floors for possible conversion to Category 1 defined-movement. | 3.0 | 4.5 | 6.5 | 10.0 |

For all classifications, all points surveyed should be within 15 mm from datum.

The floor is non-compliant if:

- more than 5% of the total number of measurements in any aisle exceed the 95% property limit
- any measurement in any aisle exceeds the 100% property limit, and
- any point of the floor is outside ± 15 mm of datum.