

Extract from

CONCRETE SOCIETY TECHNICAL REPORT NO.34, 3rd EDITION.

Section 4 – Surface Regularity

Free Movement

Table 4.2: Permissible limits on Properties II and IV in Free-Movement areas.

Floor classification	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 FM1 classification are likely to be constructed using long strip methods.	2.5	4.0	4.5	7.0
FM2	Wide aisle warehousing with stacking or racking over 8 m, free-movement areas and transfer areas.	3.5	5.5	8.0	12.0
FM3	Wide aisle warehousing with stacking or racking up to 8 m, retail and manufacturing facilities.	5.0	7.5	10.0	15.0

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 later conversion to Category 1 defined movement.	3.0	4.5	6.5	10.0

Defined Movement

Table 4.3: Permissible limits for Properties I, II, III in Defined Movement areas.

Floor classification	MHE lift height	Property I		Property II		Property III			
		95%	100%	95%	100%	Wheel track up to 1.5m		Wheel track over 1.5m	
						95%	100%	95%	100%
Superflat (SF)	Over 13 m	0.75	1.0	1.0	1.5	1.5	2.5	2.0	3.0
Category 1	8 – 13 m	1.5	2.5	2.5	3.5	2.5	3.5	3.0	4.5
Category 2	Up to 8 m	2.5	4.0	3.25	5.0	3.5	5.0	4.0	6.0

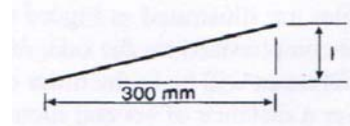
Note: For all classifications, all points surveyed should be within ± 15 mm from datum.

Legend:

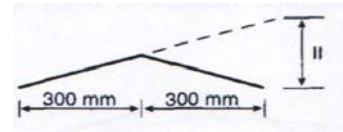
Property

Elevational differences or measurements derived from elevational differences that are limited for each class of floor.

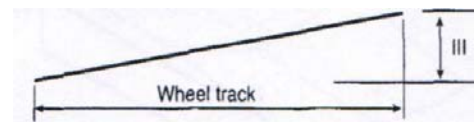
Property I – The elevational difference in mm between two points 300 mm apart.



Property II – To control flatness, the change in elevational difference between two consecutive measurements of elevational difference (Property I) each measured over 300 mm.



Property III – The elevational difference in mm between the centres of the front load wheels of materials handling equipment.



Property IV – To control levelness, the elevational difference in mm between fixed points 3 m apart.

