

related test method	<b>ENV 13381-3: 2002 Fire protection of concrete – by applied fire protection materials</b>
subject	<b>Definition of loading and bending moment to be applied to test specimens (correction of error in standard)</b>
reference of original query	TC2 N290rev1 Helpdesk 2002-04

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### Problem

The text § 5.3 'loading conditions' and figures 1, 2 and 3 in ENV 13381-3 (and possibly also in standards ENV 13381-5 and -6) do not agree.

The text in § 5.3, states "The load (P) applied to the test specimen shall be calculated .....such that the following bending moments are produced and that the same stresses are exist within the steel reinforcement.

Small slabs	5 kN.m/m width
Large slabs	14 kN.m/m width
Beams	25 kN.m/m width

Whereas, the figures 1, 2 and 3 show the load to be applied [P] and yet defines that load in terms of bending moment.

This might lead to confusion and misinterpretation of loading requirements amongst test laboratories.

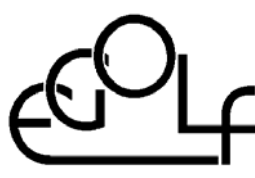
### Recommendation

Laboratories when testing long loaded concrete slabs and beams according to ENV 13381-3: 2002 shall interpret the text with respect to § 5.3 and figures 1, 2 and 3 as follows:

The text in § 5.3 should be modified to read:

"The load (P) applied to the test specimen shall be calculated .....such that the following bending moments (**M**) are produced and that the same stresses are exist within the steel reinforcement.

Small slabs	M = 5 kN.m/m width
Large slabs	M = 14 kN.m/m width



Beams  $M = 25 \text{ kN.m/m width}$

The legend in figures 1, 2 and 3 should show bending moments  $M$  (instead of load applied  $P$ ) and the units for bending moment given therein be followed.

CEN TC127 to consider if a definition of "M (bending moment)" should be included in clause 3.2, 'symbols and definitions.

This instruction shall be followed until CEN TC127 completes a revision of the standard.