CODE

Table 7.3.1.1—Minimum thickness of solid nonprestressed one-way slabs

Support condition	Minimum h[1]
Simply supported	$\ell/20$
One end continuous	$\ell/24$
Both ends continuous	$\ell/28$
Cantilever	$\ell/10$

[1]Expression applicable for normalweight concrete and f_y = 420 MPa. For other cases, minimum h shall be modified in accordance with 7.3.1.1.1 through 7.3.1.1.3, as appropriate.

7.3.1.1.1 For f_y other than 420 MPa, the expressions in Table 7.3.1.1 shall be multiplied by $(0.4 + f_y/700)$.

7.3.1.1.2 For nonprestressed slabs made of lightweight concrete having w_c in the range of 1440 to 1840 kg/m^3, the expressions in Table 7.3.1.1 shall be multiplied by the greater of (a) and (b):

(a) $1.65 - 0.0003w_c$
(b) **1.09**

7.3.1.1.3 For nonprestressed composite slabs made of a combination of lightweight and normalweight concrete, shored during construction, and where the lightweight concrete is in compression, the modifier of 7.3.1.1.2 shall apply.

7.3.1.2 The thickness of a concrete floor finish shall be permitted to be included in h if it is placed monolithically with the floor slab or if the floor finish is designed to be composite with the floor slab in accordance with 16.4.

7.3.2 *Calculated deflection limits*

7.3.2.1 For nonprestressed slabs not satisfying 7.3.1 and for prestressed slabs, immediate and time-dependent deflections shall be calculated in accordance with 24.2 and shall not exceed the limits in 24.2.2.

7.3.2.2 For nonprestressed composite concrete slabs satisfying 7.3.1, deflections occurring after the member becomes composite need not be calculated. Deflections occurring before the member becomes composite shall be investigated, unless the precomposite thickness also satisfies 7.3.1.

7.3.3 *Reinforcement strain limit in nonprestressed slabs*

7.3.3.1 Nonprestressed slabs shall be tension-controlled in accordance with Table 21.2.2.

7.3.4 *Stress limits in prestressed slabs*

7.3.4.1 Prestressed slabs shall be classified as Class U, T, or C in accordance with 24.5.2.

COMMENTARY

R7.3.2 *Calculated deflection limits*

The basis for calculated deflections for one-way slabs is the same as that for beams. Refer to R9.3.2 for additional information.

R7.3.3 *Reinforcement strain limit in nonprestressed slabs*

R7.3.3.1 The basis for a reinforcement strain limit for one-way slabs is the same as that for beams. Refer to R9.3.3 for additional information.