



TECHNICAL BULLETIN No. 17

Lintels or headers are the horizontal members that span the top of window or door openings. Lintels constructed from concrete need to be braced to ensure the lintel does not sag due to the weight of the freshly placed concrete.

After the concrete is poured and properly cured, it normally takes 28 days to gain its specified strength. Bracing does not necessarily need to stay in place for the full 28 days, but should remain until the concrete has gained enough strength to support its own weight, construction loads, and possibly the weight of other elements connected to it (i.e. floor systems).

The length of time bracing stays in place is determined through engineering. However, **Table 1** can be used to determine the minimum duration before bracing should be removed.

Table 1

Loading Conditions	Remove Bracing after... (days)
Not subjected to loading	2
Subjected to partial loading	6
Subjected to full loading	See Table 2

Source: Cement Association of Canada, ACI 306

Table 2

Required Percentage of Standard Cured 28day Strength	Remove Bracing after... (days)
50	6
65	11
85	21
95	29

Source: Cement Association of Canada, ACI 306

Partial loading, noted in **Table 1**, assumes the bracing is removed when the lintel is exposed to only a portion of the final design loads it was designed for (i.e., normally before construction of the building is completed). Removal of bracing during partial loading is typical for most residential construction.

If the lintel will be subjected to the full loading it was designed for before the concrete reaches its 28 day strength then the bracing should remain in place as per **Table 2**. An engineer would be required to determine the required percentage of design strength noted in **Table 2**.

When in doubt it is a good idea to leave the braces in place until the concrete has cured for a minimum of 4 weeks after the final concrete pour of the lintel.