

Technical Bulletin

Canadian Codes and Brick

A brief primer for Sales Rep's

I have reviewed the Canadian standards and building codes for brick veneer requirements. There are several requirements regarding; 1) bed depth, 2) C652 lightweight brick, 3) freeze thaw testing, and absorption requirements that we will need to be aware of.

The applicable standards and code documents in Canada are as follows:

- CSA A371-14 Masonry Construction for Buildings
- CSA S304-14 Design of Masonry Structures
- CSA A82-14 Fired Masonry Brick Made from Shale or Clay
- Ontario Building Code 2012
- National Building Code of Canada 2015

Minimum Bed Depth

Ontario: 70mm (2 ¾") with regular mortar joints
90mm (3 ½") with raked mortar joints

Outside Ontario: 75mm (3") with regular mortar joints
90mm (3 ½") with raked mortar joints

In Canada raked mortar joints (particularly on the front elevation) are common. Therefore for purposes of shipping brick to Canada the **minimum bed depth is 3 ½"**

Lightweight Brick (Hollow C652)

Canadian Codes do not allow lightweight C652 brick. Therefore **all brick must meet C216 coring**

Freeze Thaw Testing

The Canadian standards freeze thaw testing methods are slightly different than ASTM C67. The Canadian test method requires that brick must be kept continuously saturated when not in the freezer.

Absorption

Canadian standards also have some slight differences in absorption requirements than ASTM.

Requirement	CSA A82	ASTM C216
5 hr Boil (BWA)	Individual < 17%	Individual < 20% Avg. < 17%
24 hr Cold (CWA) and C/B ratio	Individual C/B < 0.78 or Individual C < 8%	Individual C/B < 0.80 Avg. C/B < 0.78 Waiver if Individual C < 8%

If you have any questions or comments please contact Jim Bryja.

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