

Canadian Society of Civil Engineers.

PROPOSED STANDARD SPECIFICATION OF PORTLAND CEMENT.

The whole of the cement is to be slightly burnt pure Portland Cement, of the best quality, free from free-lime, slag, dust, or other foreign material.

(1) *Fineness.*—The cement shall be ground so fine that the residue on a sieve of 10,000 meshes to the square inch shall not exceed 10% of the whole by weight, and the whole of the cement shall pass a sieve of 2,500 meshes to the square inch.

(2) *Specific Gravity.*—The specific gravity of the cement shall be at least 3.09, and shall not exceed 3.25 for fresh cement; the term "fresh" being understood to apply to such cements as are not more than two months old.

(3) *Tests.*—The cement shall be subjected to the following tests:—

(a) *Blowing Test.*—Mortar pats of neat cement, thoroughly worked, shall be trowelled upon carefully cleaned 5-in. by 2½-in. ground glass plates. The pats shall be about ½-in. thick in the centre and worked off to the sharp edges at the four sides. They shall be covered with a damp cloth and allowed to remain in the air until set, after which they shall be placed in vapour in a tank, in which the water is heated to a temperature of 130° Fah. After remaining in the vapor six hours, including the time of setting in air, they shall be immersed in the hot water and allowed to remain there for eighteen hours. After removal from the water the samples shall not be curled up, shall not have fine hair cracks, nor large expansion cracks, nor shall they be distorted. If separated from the glass, the samples shall break with a sharp, crisp ring.