# Guide for Cellular Concretes above 50 lb/ft<sup>3</sup> (800 kg/m<sup>3</sup>)

Reported by ACI Committee 523



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## ACI 523.3R-14

### Guide for Cellular Concretes above 50 lb/ft<sup>3</sup> (800 kg/m<sup>3</sup>)

Reported by ACI Committee 523

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This guide addresses the materials, properties, design, production, and placement of cellular concretes with as-cast densities greater than 50 lb/ft<sup>3</sup> (800 kg/m<sup>3</sup>). The usual density range of cellular concrete is 20 to 120 lb/ft<sup>3</sup> (320 to 1920 kg/m<sup>3</sup>). Cellular concretes in the lower portion of this range are used for many applications, such as roof thermal insulation and geotechnical fills. Cellular concretes in the higher density range are used for cast-in-place, precast applications and nonstructural floor fills.

**Keywords:** cellular concrete; compressive strength; fire resistance; insulating concrete; lightweight concrete; mixture proportioning; modulus of elasticity; precast concrete; recyclability; shear properties; splitting tensile strength; structural design; sustainability; thermal conductivity.

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