

CHAPTER 7 - RESPONSIBLE CONSTRUCTION

400

407.03 SUSTAINABLE CONCRETE



INTENT

Promote development of low carbon-built environment.

REQUIREMENT

For Golden and Platinum Sa'fa and all new buildings, concrete mixes shall have an environmental impact less than that specified in Dubai Sustainable Concrete Baseline.

The environmental impact for all mixes used in the project shall be less than the baseline by 7% for Golden Sa'fa and 15% for Platinum Sa'fa.

SIGNIFICANCE

Concrete is an integral component of the construction industry. Ever-growing demand increases the need to produce more quantities of concrete mixes. Embodied CO₂ in cement gets accumulated during extraction of raw materials and processing and during transportation to construction sites. Cement production is one of the leading producers of anthropogenic CO₂ in the world. It also has environmental effect on the land degradation and related pollution.

Dubai Municipality has developed Dubai Sustainable Concrete Baseline (DSCB) to reduce the environmental impact of concrete mixtures in the Emirate of Dubai. This is to ensure best practice across the life cycle of concrete in the built environment is provided and to balance the specification of concrete for sustainability while ensuring other performance parameters are optimised.

To reduce the impact of emission associated with concrete, cement portion in concrete mixes is being supplemented with industrial by-products such as Ground Granulated Blast-Furnace Slag (GGBFS), Fly ash or Silica fumes commonly known as supplementary cementitious materials or SCMs. Usage of SCMs helps improve the environmental footprint of concrete and in reduction of greenhouse gas emission.

APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(2) in Section One - Administration for detailed applicability levels.