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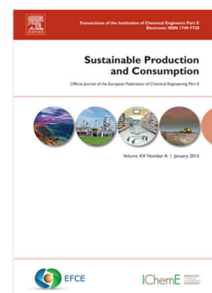
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## Lightweight concrete in America: presence and challenges

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**Abstract:** The use of lightweight concrete (LWC) in the USA is apparently experiencing dormant or even declining trends in a number of states. This study attempts to estimate the current and future patterns of the LWC interest and demand. A structured survey was conducted to gauge the acceptance level of LWC and the obstacles threatening its presence in the construction market. A customized questionnaire was delivered to 6,203 potential participants from the industry to identify the degree of utilization of LWC. For insights into the market status and construction practices, confirmatory unstructured interviews were conducted with selected practitioners. The critical expert input together with the five-force Porter's evaluation of the market mechanics was used in a situational analysis of LWC usage in construction. The survey findings and conducted analyses collectively flagged the relative absence of fundamental understanding and/or appreciation of the superb sustainability gains of LWC – owed to its reduced weight and subsequent lower carbon footprint, energy saving, and cost effectiveness compared to the normal weight concrete (NWC). This seems to be the key factor that determines demand and production of LWC. The use of the Kotter's framework is proposed to promote the use of LWC in a construction culture predominantly fixated on NWC. Implementing the suggested interventions can possibly initiate a paradigm change in the industry practices and regulations.

**Keywords:** Lightweight concrete, survey, sustainability, market demand, construction culture,

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