

PHYSICAL AND CHEMICAL CHARACTERISTICS OF AGGREGATE MATERIAL PASSING THE MESH 75 mm (# 200) AND ITS INFLUENCE IN THE INHIBITION OF THE ALKALI – SILICA REACTIVITY IN MEXICO CITY

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ABSTRACT

Alkali-silica reaction has always been considered a potential problem in concrete manufactured in Mexico City. However, a problem of this type has not been identified in this region in any structures made with these materials. This is surprising, especially when considering that all of the conditions necessary to promote ASR seem to be present. The present work characterizes the aggregates used and presents some case studies of concrete elements with more than 25 years of age. A series of hypothesis are presented to explain the absence of any significant ASR in concrete structures that appears to have all of the necessary elements for the development of ASR.