

INFLUENCE OF HEAT ON THE PERMEABILITY AND DURABILITY OF CONVENTIONAL AND ROBUST CONCRETE

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ABSTRACT

Specifically, the researchers investigated how the temperature of the conditioning process affected the permeability and strength of the concrete. Following a conditioning period of 28 days at temperatures of 85 and 105 8 degrees Celsius, concretes were evaluated for their permeability, compressive strength, and indirect tensile strength to determine their properties. In terms of strength, the concretes were expected to achieve values of forty and one hundred N/mm², respectively. After 28 days of curing at temperatures of 85 degrees Celsius and 105 degrees Celsius, respectively, strength tests conducted on normal-strength concrete (NSC) and high-strength concrete (HSC) gave results that were comparable. The findings of the permeability test were relatively consistent for both of the conditioning temperatures; nonetheless, there were greater variations than in the reports that came before. Based on the findings, it was determined that conditioning at either 85 or 105 degrees Celsius was satisfactory, with 105 degrees Celsius being the temperature that was desired

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