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Award-winning paper in 2019.

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Announcement

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Award-winning paper in 2019

Papers published in *Magazine of Concrete Research* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Thursday 4 June 2020, the award was announced for the following paper published in *Magazine of Concrete Research* in 2019. The Editorial Panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the awards.

Magazine of Concrete Research Prize

The Magazine of Concrete Research Prize, awarded for the best paper published in *Magazine of Concrete Research*, was awarded to Harrison (2019).

Abstract

The determination of performance levels for carbonation resistance from modelling or from benchmarking current national provisions does not give consistent results. Current modelling tends to inaccurately determine values for concretes containing cements with less than 55% Portland cement clinker. This is probably due to the input

from standard carbonation tests, where the relative humidity of 57% to 65% significantly reduces further hydration. Data from sheltered natural exposure sites show that concrete made from slowly reacting cements perform much better than predicted by modelling. Testing the carbonation resistance of concretes conforming to the recommendations in BS 8500-1 is not normally necessary, but in the author's opinion there are a few situations, identified in the paper, where carbonation testing is advisable. As it is almost essential that performance results are obtained in a reasonable timescale, carbonation-resistance requirements should be specified in terms of accelerated test criteria. Specifying the performance requirements given in this paper for the accelerated test procedure (prEN 12390-12) will be safe but very conservative for slowly reacting cements. Where carbonation resistance is specified by performance, it is prudent to specify, in addition to the performance requirements, limiting values, until sufficient experience is obtained from specifying durability by performance.

REFERENCE

Harrison TA (2019) Specifying resistance against carbonation-induced corrosion by performance. *Magazine of Concrete Research* **71(7)**: 341–348, <https://doi.org/10.1680/jmacr.17.00397>.