SERVICE LIFE DESIGN - GRAPHICAL SOLUTION

SHRP2 SOLUTIONS

Calculations as per fib Bulletin 34 - fully probabilistic design
Service Life = 100 years
Beta = 1.3, Probability of failure = 10%
Critical chloride concentration: black bars - 0.6%cem.
Initial chloride concentration : 0.1%cem.

Temperature: mean = 49.1F, std = 12.1F
Exposure Zones: Buried/Submerged
Concrete Type: OPC + >20%FA

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Y-axis: Chloride Surface Concentration (%cem.)

X-axis: Migration Coefficient at 28 days Dcrm (in²/year)

Legend: 1in cover — 1.5in Cover — 2in cover — 2.5in cover — 3in cover — 3.5in cover — 4in cover