

DIN EN 196-8:2010-07 (E)

Methods of testing cement - Part 8: Heat of hydration - Solution method

Contents	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Principle	4
4 Materials	4
4.1 Acid mixture	4
4.2 Zinc oxide (ZnO)	5
4.3 Anhydrous cement	5
4.4 Hydrated cement	5
5 Apparatus	5
6 Calorimeter calibration	7
6.1 Principle	7
6.2 Procedure	7
6.3 Calculation of calibration characteristics	8
6.3.1 Corrected temperature increase, T _c	8
6.3.2 Thermal leakage coefficient, K	8
6.3.3 Thermal capacity, C	8
7 Determination of heat of solution	9
7.1 Heat of solution of anhydrous cement	9
7.1.1 Procedure	9
7.1.2 Calculation	10
7.1.3 Expression of results	10
7.2 Heat of solution of hydrated cement	11
7.2.1 Procedure	11
7.2.2 Correction for bound water	11
7.2.3 Calculation	11
7.2.4 Expression of results	12
8 Heat of hydration	13
8.1 Calculation of results	13
8.2 Reporting of results	13
8.3 Precision	13
8.3.1 Repeatability	13
8.3.2 Reproducibility	13
Bibliography	14