

DIN EN 196-9:2010-07 (E)

Methods of testing cement - Part 9: Heat of hydration - Semi-adiabatic method

Contents		Page
Foreword		3
1	Scope	4
2	Normative references	4
3	Principle	4
4	Apparatus	4
5	Determination of the heat of hydration	7
5.1	Laboratory	7
5.2	Procedure	8
5.2.1	Mortar composition	8
5.2.2	Mixing	8
5.2.3	Positioning of the test sample	8
5.3	Measurement of heating	8
6	Calculation of the heat of hydration	9
6.1	Principles of calculations	9
6.2	Calculation of the heat accumulated in the calorimeter	9
6.3	Calculation of heat lost into ambient atmosphere	10
6.4	Calculation of heat of hydration	11
7	Expression of results	11
7.1	Reporting of results	11
7.2	Precision	11
7.2.1	Repeatability	11
7.2.2	Reproducibility	11
Annex A (normative)	Calibration of the calorimeter	12
A.1	Principle	12
A.2	Apparatus and power supply	12
A.3	Calibration procedure	13
A.3.1	Determination of the coefficient of total heat loss,	13
A.3.2	Determination of the thermal capacity	15
Annex B (informative)	Worked example of determination of heat of hydration	17
B.1	General test conditions	17
B.2	Basic calculations	17
B.3	Determination of test results	17
Bibliography		20