DIN EN 12057:2015-05 (E)

Natural stone products - Modular tiles - Requirements

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 6

4 Characteristics of natural stone modular tiles 6
4.1 Geometrical characteristics 6
4.1.1 General 6
4.1.2 Dimensions 7
4.1.3 Surface finish 7
4.2 Physical and mechanical characteristics 7
4.2.1 General 7
4.2.2 Denomination 8
4.2.3 Visual appearance 8
4.2.4 Flexural strength 9
4.2.5 Bond strength/adhesion 9
4.2.6 Water absorption at atmospheric pressure 10
4.2.7 Reaction to fire 10
4.2.8 Water absorption by capillarity 10
4.2.9 Apparent density and open porosity 10
4.2.10 Durability 10
4.2.11 Thermal shock resistance 11
4.2.12 Water vapour permeability 11
4.2.13 Slip resistance 11
4.2.14 Skid resistance 11
4.2.15 Tactility 11
4.2.16 Direct airborne sound insulation 12
4.2.17 Thermal conductivity 12
4.2.18 Release of dangerous substances 12

5 Testing, assessment and sampling methods 12
5.1 Testing 12
5.2 Sampling 12
5.2.1 General 12
5.2.2 Principles of sampling 13
5.2.3 Taking bulk samples 13
5.2.4 Preparing a sampling plan 13
5.2.5 Sampling apparatus 13
5.2.6 Sampling methods 13
5.2.7 Marking, packaging and dispatch of the samples 15
5.2.8 Sampling report 15

6 Assessment and verification of constancy of performance - AVCP 17
6.1 General 17
6.2 Type Testing 17
6.2.1 General 17
6.2.2 Test samples, testing and compliance criteria 18
6.2.3 Test reports 19
6.2.4 Shared other party results 19

6.2.5 Cascading determination of the product type results 19
6.3 Factory production control (FPC) 21
6.3.1 General 21
6.3.2 Requirements 21
6.3.3 Product specific requirements 24
6.3.4 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity 25
6.3.5 Procedure for modifications 26

7 Marking and packaging 26

Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation 28

ZA.1 Scope and relevant characteristics 28

ZA.2 Procedure for attestation of conformity of natural stone modular tiles 33

ZA.2.1 System(s) of attestation of conformity 33

ZA.2.2 Declaration of performance (DoP) 41

ZA.2.2.1 General 41

ZA.2.2.2 Content 42

ZA.2.2.3 Examples of DoP 43

ZA.2.2.3.1 Example of DoP for natural stone tiles used as internal wall and ceiling finishes 43

ZA.2.2.3.2 Example of DoP for natural stone tiles used as external wall and ceiling finishes 45

ZA.2.2.3.3 Example of DoP for natural stone tiles used as internal flooring and stair finishes 47

ZA.2.2.3.4 Example of DoP for natural stone tiles used as external flooring and stair finishes 49

ZA.3 CE marking and labelling 51

Bibliography 56