



DETERMINATION OF MOISTURE MOVEMENT

Report No : 121119-1-1
Case No : 120928-2
Delivery Date : 28-09-2012
Test Dates : OCTOBER-NOVEMBER 2012
CLIENT : TEPOSTONE

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST ACCORDING EN 772-14 : DETERMINATION OF MOISTURE
MOVEMENT OF AGGREGATE CONCRETE AND MANUFACTURED
STONE MASONRY UNITS

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

CONDITIONING OF SPECIMENS BEFORE TESTING:

Temperature : 22°C ,Relative Humidity : 55% for 14 days

TEST SPECIMENS :

Six specimens as representative portions of whole units
Length of specimens : 300 mm
Gauge Length : 280 mm

TEST EQUIPMENT

Ventilated drying oven : SP 98
Freezing unit : NH1210
Balance: KERN
Measuring device : VOGEL

TEST CONDITIONS


Immersion time : 4 days
Drainage time : 21 days



TEST RESULTS :

SPECIMEN	EXPANSION COEFFICIENT mm/m	SHRINKAGE COEFFICIENT mm/m	MOISTURE CONTENT %
1	1.512	1.286	0.672
2	1.624	1.374	0.687
3	1.586	1.342	0.595
4	1.492	1.264	0.622
5	1.610	1.352	0.712
6	1.566	1.318	0.680

Mean Expansion Coefficient : 1.56 mm/m
Mean Shrinkage Coefficient : 1.32 mm/m
Mean Moisture Content : 0.66 %


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DETERMINATION OF WATER ABSORPTION

Report No : 121119-1-2
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Delivery Date : 28-09-2012
Test Dates : OCTOBER-NOVEMBER 2012
CLIENT : TEPOSTONE

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST ACCORDING EN 772-14 : DETERMINATION OF WATER ABSORPTION OF AGGREGATE CONCRETE, MANUFACTURED STONE AND NATURAL STONE MASONRY UNITS DUE TO CAPILLARY ACTION AND THE INITIAL RATE OF WATER ABSORPTION OF CLAY MASONRY UNITS

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

CONDITIONING OF SPECIMENS BEFORE TESTING:

Temperature : 22°C ,Relative Humidity : 55% for 14 days

TEST SPECIMENS :

Six specimens as representative portions of whole units

TEST EQUIPMENT

Ventilated drying oven : SP 98
Stopwatch : SP 102
Balance: KERN
Measuring device : VOGEL



TEST RESULTS :

SPECIMEN	WATER ABSORPTION COEFFICIENT	TIME OF IMMERSION
1	1.45 gr/m ² xs	10 min
2	1.29 gr/m ² xs	10 min
3	1.55 gr/m ² xs	10 min
4	1.18 gr/m ² xs	10 min
5	1.44 gr/m ² xs	10 min
6	1.62 gr/m ² xs	10 min

MEAN WATER ABSORPTION COEFFICIENT : 1.4 gr/m²xs

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DETERMINATION OF THERMAL PROPERTIES

Report No : 121119-1-3
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Delivery Date : 28-09-2012
Test Dates : OCTOBER-NOVEMBER 2012
CLIENT : TEPOSTONE

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST ACCORDING EN 772-14 : MASONRY AND MASONRY UNITS-
METHODS FOR DETERMING DESIGN THERMAL PROPERTIES.
EN 8301 : THERMAL INSULATION -DETERMINATION OF STEADY STATE
THERMAL RESISTANCE AND RELATED PROPERTIES -HEAT FLOW METER
APPARATUS.

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

CONDITIONING OF SPECIMENS BEFORE TESTING:

Temperature :22°C ,Relative Humidity : 55% for 14 days

TEST SPECIMENS :

Three specimens as representative portions of whole units
Specimens Dimensions : 200x200 mm

TEST EQUIPMENT

Laser Comp Fox 200

TEST CONDITIONS

Test Temperature : 25°C
Set Point Upper : 23°C
Set Point Lower : 27°C



TEST RESULTS :

SPECIMEN	THERMAL CONDUCTIVITY λ [W/(mK)]	THERMAL RESISTANCE R[(m ² K)/W]
1	0.05584	0.07215
2	0.05573	0.07223
3	0.05578	0.07218

THERMAL CONDUCTIVITY λ [W/(mK)] : 0.05577
THERMAL RESISTANCE R[(m²K)/W] : 0.07219


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DETERMINATION OF DURABILITY (FREEZE /THAW RESISTANCE)

Report No : 121119-1-4
Case No : 120928-2
Delivery Date : 28-09-2012
Test Dates : OCTOBER-NOVEMBER 2012
CLIENT : TEPOSTONE
TEST OPERATORS : N.HATZOPOULOS , M.KOUKOULI

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST BASED ON: EN 539-2 CLAY ROOFING TILES FOR DISCONTINUOUS
LAYING -DETERMINATION OF PHYSICAL CHARACTERISTICS-TEST
FOR FROST RESISTANCE

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

TEST SPECIMENS :

Six specimens as representative portions of whole units adhered on to marine ply wood tiles .

TEST EQUIPMENT

Drying Oven : SP98
Freezing unit : NH 1210

TEST CONDITIONS

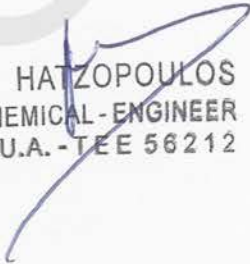
The specimens were submit to 24 Freeze/thaw cycles consisting of 12 cycles with an air temperature of $-40 \div 1^{\circ}\text{C}$ in the freezing stage, followed by 12 cycles with an air temperature of $-15^{\circ} \div 1^{\circ}\text{C}$ in the freezing stage
The specimens were immersed in water ($40 \div 3^{\circ}\text{C}$) during the thawing stage.
Freezing stage time : 8 hours
Thawing stage time :4 hours



TEST RESULTS :

No surface cracks ,structural cracks ,breaks ,scaling or surface damage ,flaking , delamination and peeling were observed in all specimens ..

The specimens have good frost resistance at the required temperature - 40 ÷ 1°C


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DETERMINATION OF DIMENSIONS

Report No : 121119-1-5
Case No : 120928-2
Delivery Date : 28-09-2012
Test Dates : OCTOBER-NOVEMBER 21012
CLIENT : TEPOSTONE

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST ACCORDING EN 772-16 : METHODS OF TEST FOR MASONRY UNITS
-DETERMINATION OF DIMENSIONS

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

CONDITIONING OF SPECIMENS BEFORE TESTING:

Temperature :22°C ,Relative Humidity : 55% for 14 days

TEST SPECIMENS :

Six specimens as representative portions of whole units
Surface treatment : From the specimens were removed all superfluous materials adhered to the unit as a result of the manufacturing process

TEST EQUIPMENT

Measuring device : VOGEL

TEST PROCEDURE

According to 7.1 a



TEST RESULTS :

SPECIMEN	LENGTH mm	WIDTH mm	HEIGHT mm
1	600.12	600.04	1.98
2	600.06	600.08	2.02
3	600.14	600.14	2.03
4	600.08	600.08	2.02
5	600.02	600.12	2.02
6	600.06	600.06	1.98

Mean Length : 600.06 mm
Mean Width : 600.08 mm
Mean Height : 2.01 mm

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DETERMINATION OF COMPRESSIVE STRENGTH

Report No : 121119-1-6
Case No : 120928-2
Delivery Date : 28-09-2012
Test Dates : 8-11-2012
CLIENT : TEPOSTONE

OBJECT : MANUFACTURED STONE TEPOSTONE

TEST ACCORDING EN 772-1: METHODS OF TEST FOR MASONRY UNITS
-DETERMINATION OF COMPRESSIVE STRENGTH

METHOD OF SAMPLING :

From the client according annex A of EN 771-5 and Factory Production Control

CONDITIONING OF SPECIMENS BEFORE TESTING:

Temperature :22°C ,Relative Humidity : 55% for 14 days

TEST SPECIMENS :

Five specimens as representative portions of whole units without surface treatment
Dimensions : 20x20x2 mm .Loaded Area : 20x20 mm

TEST EQUIPMENT

Measuring device : VOGEL
Compression testing equipment : THUMLER

TEST RESULTS :

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No total failure occur in any specimen ,except the superfluous materials adhered to the unit as a result of the manufacturing process . The graphs of the compression tests are as follows

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