istituto sperimentale per l'edilizia s.p.a.

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TEST REPORT no. 0310/2014-B Guidonia M. 04/03/2014

Results of the examination with petrographic microscope carried out, starting from 18/02/2014, on a sample of stone material delivered on 06/02/2014.

Customer : **MORELLI MARMI – Rome –**

DECLARED DETAILS

Geological name : TRAVERTINO ROMANO CLASSICO
Origin : Loc. "Le Fosse" – Guidonia M. – (Rome) Italy

TEST METHOD: standard UNI EN 12407:2007

Instrumentation used: magnifying glass and petrographic microscope.

TEST RESULTS

Macroscopic description:

The sample consists of a parallelepiped of natural stone material of dimensions 15x10x3 cm.

Colour	Light beige
Structure	Vacuolar in areas, with iso-aligned cavities even millimetric in size; other areas are compact
Grain	Medium
Cracks	Absent
Pores	Present, irregular in shape, from rounded to elongated multimillimetric in size.
Cavities	Absent
Alteration	Absent
Macrofossils	Absent
Notes	The concretionary structure of the lithotype and the presence of bands with different degrees of compactness are noted. The position of the layers is evident: the larger faces are "with the stratum" others "against the stratum".

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Microscopic description:

Structure		Microsparitic. In the intergranular voids (druses) the grain size of the calcite crystals becomes sparitic; these crystals, which are of secondary genesis, tend to fill the voids.
Constituents		
	Minerals/grains	Calcite, rare microdispersions of oxides/hydroxides of iron
	Percentage by volume	100 % (approx.)
	Dimensions	Average 0.05 with some crystals up to 0.25 mm
	Distribution	Homogeneous, in places there are larger crystals that tend to fill, or fill, druses and pores.
	Orientation	Banded
	Alteration	Absent
	Fossils	Absent
Discontinuity		
	Pores, cavities	Frequent pores submillimetric to multimillimetric in size, elongated or round, of two generations: primary and secondary. Primary: rounded and quite abundant, they are due to the decomposition of plant support which was the nucleus of deposition and primary crystallisation of the calcium carbonate. Secondary: larger and elongated, they are irregular and have small crystals of calcite at the edges; they are linked to phenomena of dissolution or correspond to intergranular spaces not completely filled by calcium carbonate.
	Open cracks and breakage	-
	Filled cracks and veins	-
Petrographic definition according to UNI EN 12670:2003		Travertine

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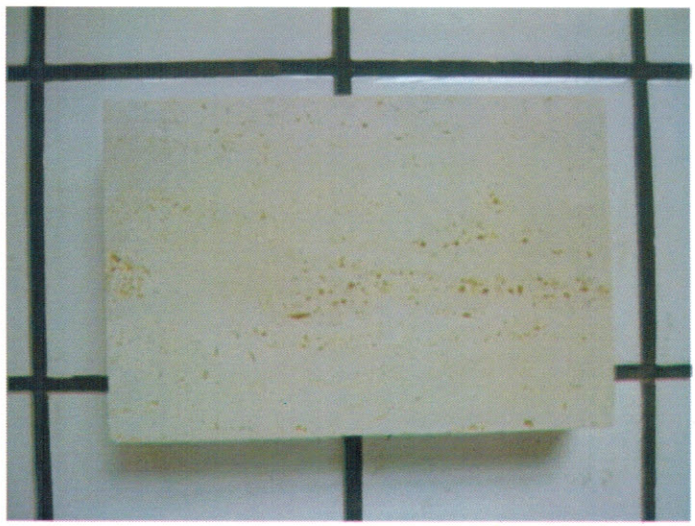
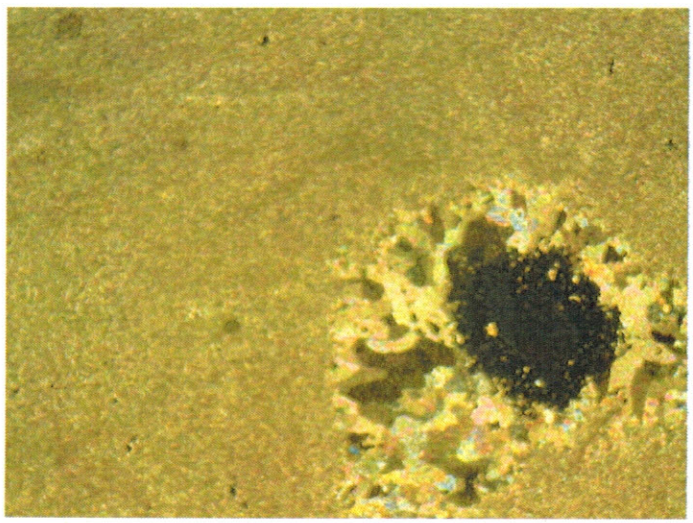
Macrophotography



The sample delivered, on which the petrographic analysis was performed.

The grid has a side equal to 10 cm.

Microphotography



Section "with the stratum". At the edges of the pores there are almost millimetric calcite crystals. Others crystals are microsparitic.

Photomicrograph (MOLP) in transmitted light, thin section, 20x, N+.

THE TESTER
Mr. Raimondo Porcari

MANAGEMENT
Mr. Fabrizio Gatti

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