Travertino Macael Amarillo

Image source: www.gutierrezmena.com

3 cm

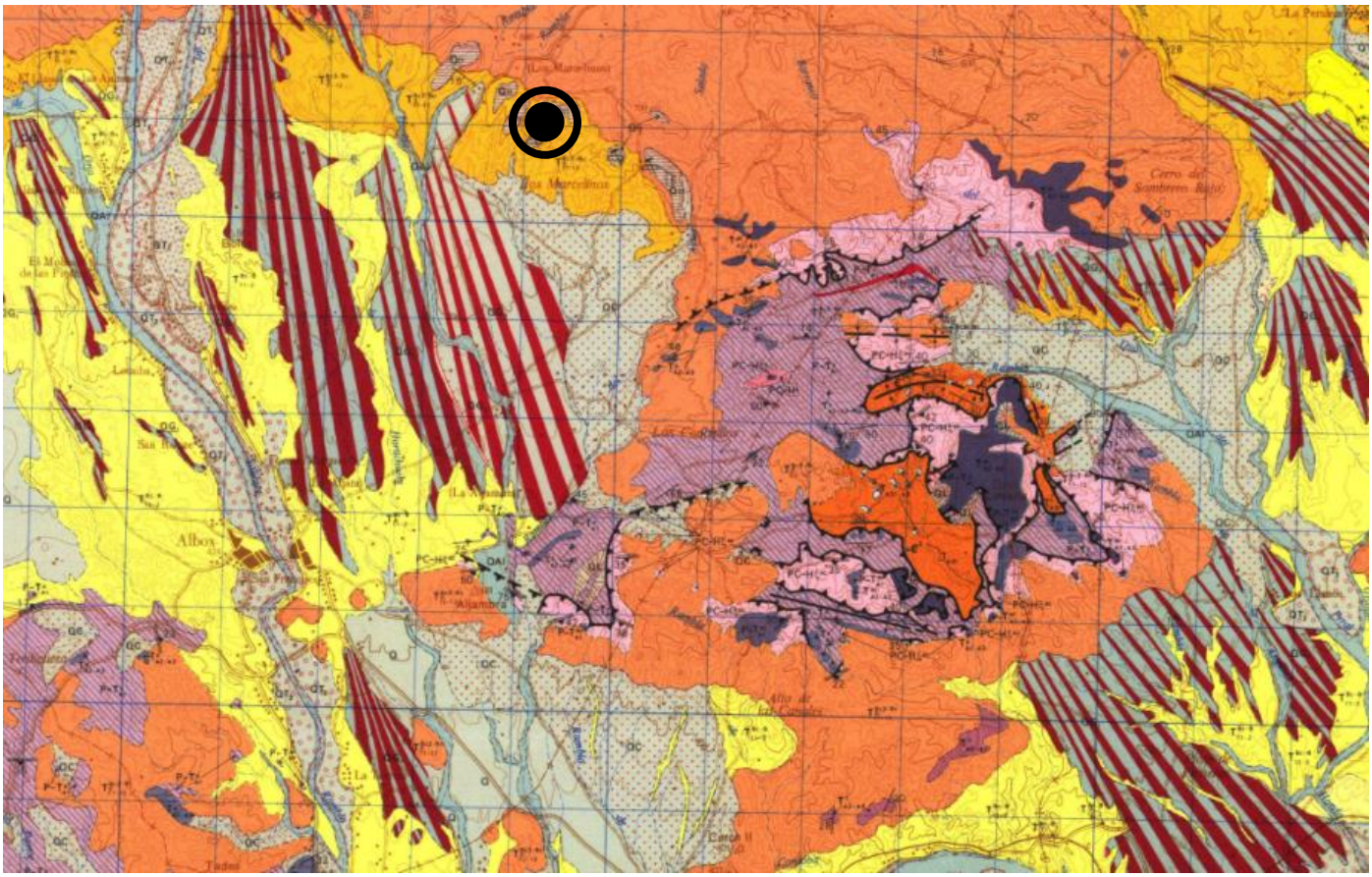
Short description:

Yellow-brown travertine with layered structure and high porosity (macropores).

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
Travertine	Travertine	Yellow	Spain	Almería	Albox	Albox

CC BY

Geological setting



Geology: Travertino Macael Amarillo is a yellow travertine quarried in a Quaternary deposits formed in the Alpujarride Domain (Internal Zone of the Betic Cordillera Range).
Geological age: Quaternay
Geological unit: Travertine of Albox

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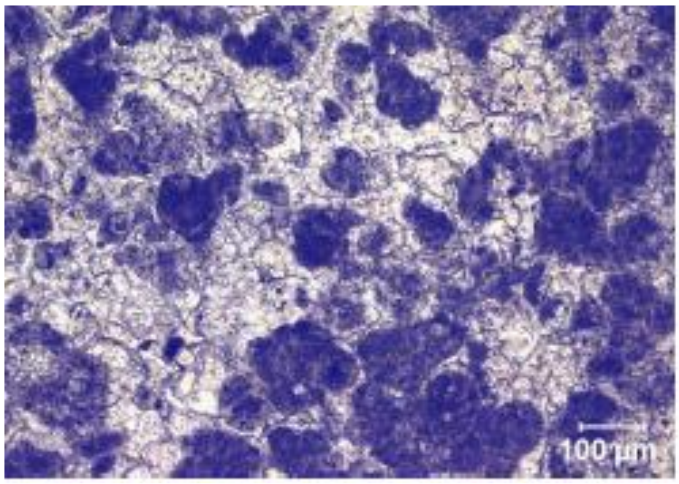
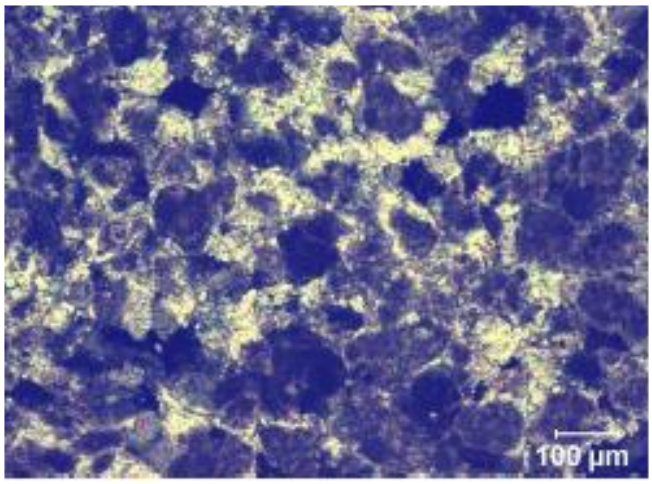
Petrography





Description:
Yellow-brown travertine with layered structure and high porosity (macropores).
Travertines with crystalline textures. Crystal size ranges between 2 microns and 2 mm. Crystals can present crystalline fibroradiate and/or arborescent textures. Punctually, micrite layers can be also found. Porosity in this rock is very high with vugs and fenestral pores.

Source of information:

1) Geological Survey of Spain (IGME)
2) García del Cura, M.A., Benavente, D., Martínez-Martínez, J., Cueto, N. (2012): Sedimentary structures and physical properties in travertines and carbonate tufa building Stone. Construction and Building Materials, 28: 456-467.

Mineral composition

If no accurate number, use MM=main minerals, SM = Subordinate minerals, AM=accessory minerals

Mineral 1 (%)	Mineral 2 (%)	Mineral 3 (%)	Mineral 4 (%)	Mineral 5 (%)	Mineral 6 (%)	Mineral 7 (%)
Calcite (97%)	**Muscovite (<1%)**	**Quartz (1%)**	**Opaque minerals (2%)**			
Mineral 8 (%)	Mineral n (%)					

Source of information:

1) Spanish Geological Survey

Physical properties

Apparent density (EN 1936) kg/m3	Open porosity (EN 1936) % vol	Water absorption at atmospheric pressure (EN 13755) % wt	Uniaxial Compressive strength (EN 1926) MPa	Flexural strength under concentrated load (EN 12372) MPa
2660	**4.6**	**1.88**	**61.97**	**30.27**

Real density (EN 1936) kg/m3	Total porosity (EN 1936) % vol	Water absorption coefficient by capillary (EN 1925) (g/m2 x s0,5)	Flexural strength under constant moment (EN 13161) MPa
		7.53	

Frost resistance (EN 12371)				
Technological Test (Test A)				Identification Test (Test B): Number of cycles completed prior to stone failure
Flexural strength (EN 12372) after freeze-thaw cycling, MPa	Number of cycles	Uniaxial compressive strength (EN 1926) after freeze-thaw cycling, MPa	Number of cycles	
		40.36	**48**	

Source of information:

1) Spanish Geological Survey (IGME)
2) Mármoles y Calizas españoles, 1990, ITGE.
3) RocMaquina, Piedras Naturales, maquinaria y equipos. ISSN: 0214-0217.
4) Benavente, D., Martínez-Martínez, J., Cueto, N., Ordóñez, S., García-del-Cura, M.A. (2018): Impact of salt and frost weathering on the physical and durability properties of travertines and carbonate tufas used as building material. Environmental Earth Sciences, 77: 147

Sources of more information

Type of information	Name of provider	URL
This data sheet		
Non-commercial directory	Spanish Geological Survey	www.igme.es
Commercial directory	RockMaquina – Piedras naturales, maquinaria y equipos.	
Scientific publication	García del Cura, M.A., Benavente, D., Martínez-Martínez, J., Cueto, N. (2012): Sedimentary structures and physical properties in travertines and carbonate tufa building Stone. Construction and Building Materials, 28: 456-467. Benavente, D., Martínez-Martínez, J., Cueto, N., Ordóñez, S., García-del-Cura, M.A. (2018): Impact of salt and frost weathering on the physical and durability properties of travertines and carbonate tufas used as building material. Environmental Earth Sciences, 77: 147	
Other publication		

Compiled by:	Instituto Geológico y Minero de España (IGME) http://www.igme.es/	Instituto Geológico y Minero de España