Crema Valencia

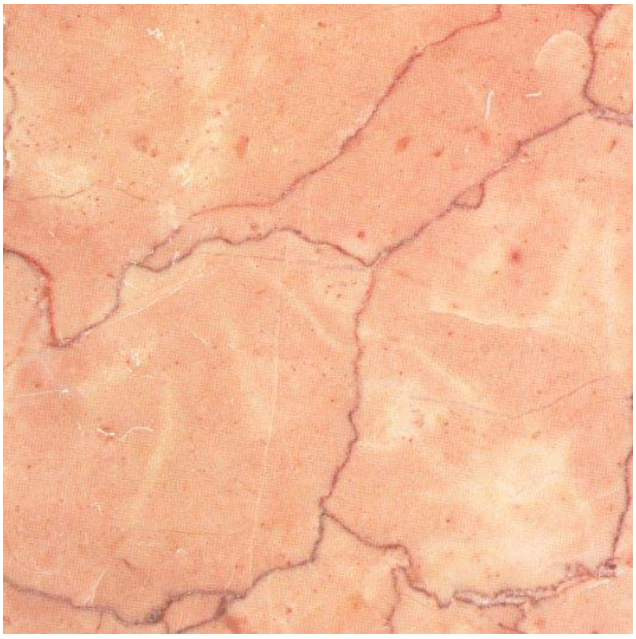


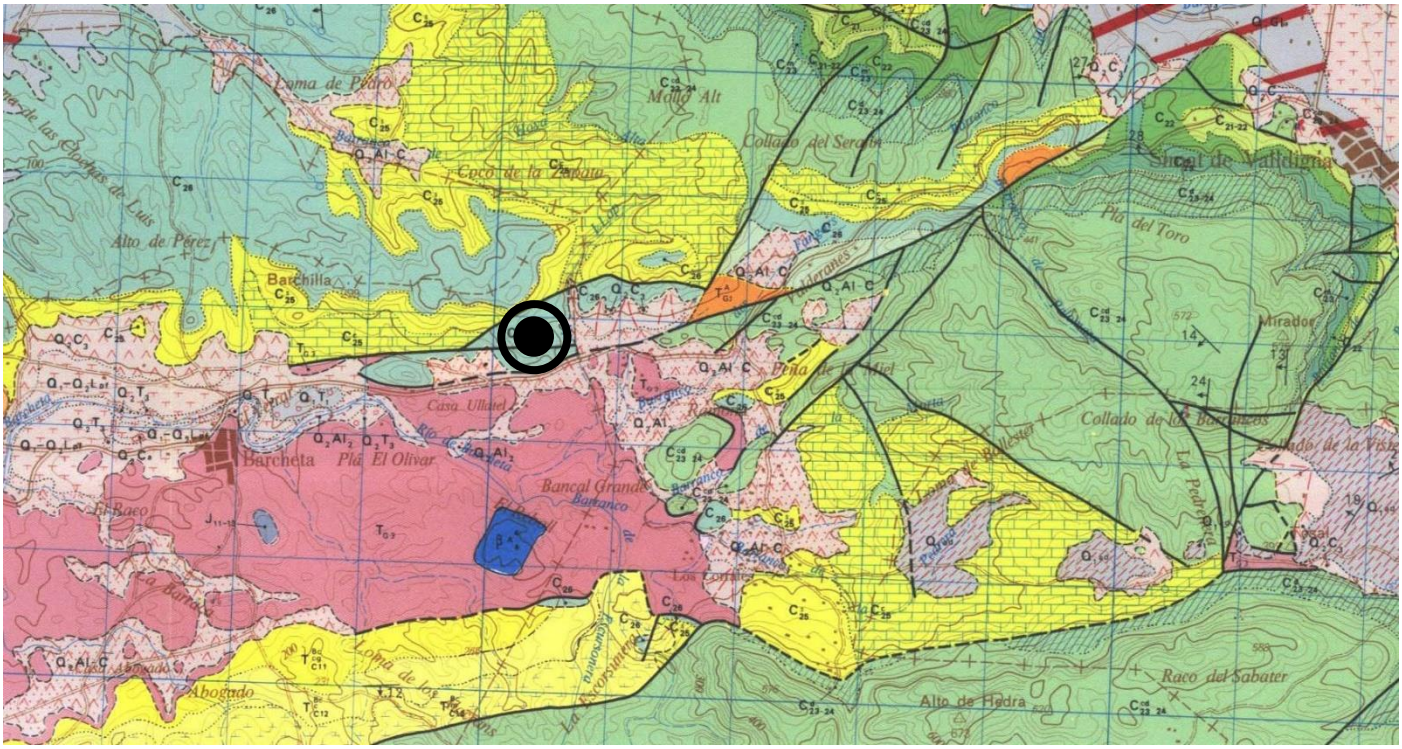
Image source: http://marmolnacional.blogspot.com/

5 cm

Short description:
Cream- to orange-coloured limestone without any recognisable depositional structure. Frequent orange stylolites characterize this building rock.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
limestone	biosparite limestone	cream	Spain	Valencia	Barcheta	Barcheta

Geological setting



Geology: The Iberian Mountain Range is an alpine structure, located to the east of the Iberian Peninsula and in the foreland of the Pyrenees and the Betic Mountain Range. The degree of deformation is moderate with very low metamorphism. The stratigraphic record is very broad, ranging from the Precambrian and Paleozoic, which appear in the nuclei of some anticlines. The Iberian Mountain Range is subdivided into five structural units: the Cameros-Demanda Unit, the Rama Aragonesa Unit, the Enlace Sector, the Castellana-Valenciana Unit and the Coastal-Catalan Cordillera.

The Crema Valencia quarries are located to the SE of the Castellano-Valenciana Unit (south of the Levantine Sector). The extraction zone constitutes the meeting of the latest guidelines of this Castellano-Valenciana Unit with the Prebetic system of the Betic Cordillera. In the boundary zones of both mountain ranges, significant differences are distinguished from a tectonic point of view (orientation of folds and/or discontinuities) while, from the stratigraphic point of view, the series of both tectonic systems are very similar. In particular, the materials of the Cretaceous (Senonian) are identical throughout the area, and correspond globally to a platform-type sedimentation. At the beginning of the series, the sedimentation is practically constant. The Senonian deposits to the north of the study area have a thickness of 700 m, shile to the south it is 1300 m.

Geological age: Cretaceous (Maestrichense)

Geological unit: Molar formation.

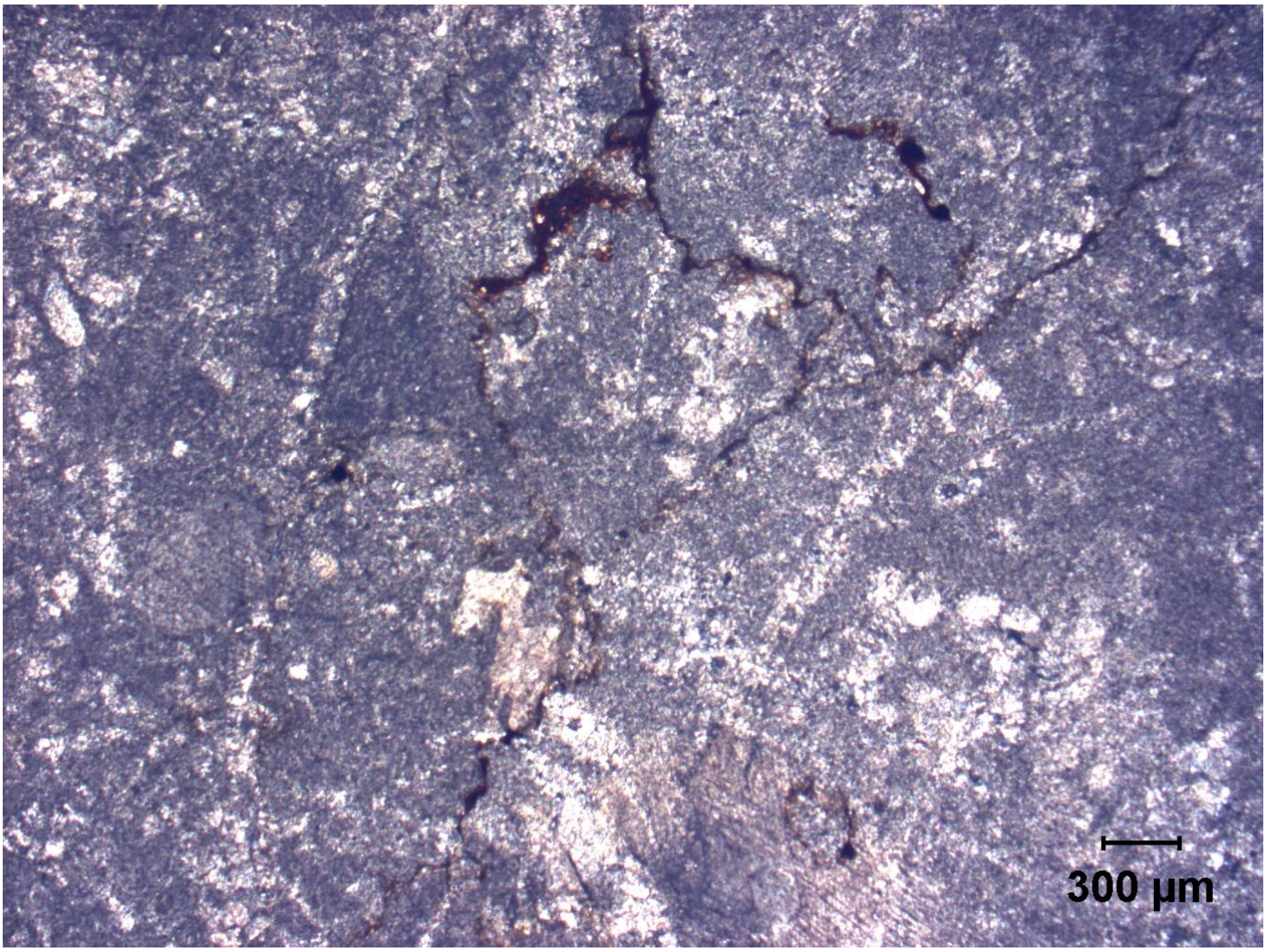
Application, use and heritage

Roman piece. Image source: latunicadeneso.wordpress.com

Fountain. Image source: https://torregris.com/

Description: The oldest varieties of this limestone were widely used and distributed during the Roman Empire. This variety of marble was known as Saetabis and is recognized in many Roman sites. Since this time it has been used as an ornamental rock and construction material over the centuries, although alternating periods of different productivity. Today, this rock is marketed under various trade names (Rosa Valencia, Crema Valencia, Crema Barcheta) and is a material widely used in modern buildings (flooring and cladding) as well as in other decorative (columns, sinks) and artistic elements (sculpture).

Petrography



Description:
Cream- to orange-coloured limestone without any recognisable depositional structure. Frequent orange stylolites characterize this building rock. At a microscopic scale, this rock corresponds to a micrite limestone with frequent clay-filled stylolites. Small calcite veins can be also found crossing the rock (calcite crystal size around 250 micrometers).

Source of information: http://www.igme.es/

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
2670		**0,6**	**133,9**	**26,99**

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
		0.1	

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	
		86.71	**56**	

Source of information:

1) https://www.itrisa.com/PIEDRA/COMPACTOS-DE-CALIZA/COMPAC/1102-CREMA-VALENCIA
2) Spanish Geological Survey.
3) RockMaquina – Piedras naturales, maquinaria y equipos.

Mineral composition

MM=main minerals, SM = Subordinate minerals, AM=accessory minerals

Mineral 1 (%)	Mineral 2 (%)	Mineral 3 (%)	Mineral 4 (%)	Mineral 5 (%)	Mineral 6 (%)	
Calcite (99 %)	**Haematite (<0.5%)**	**Kaolinite (<0.5%)**	**Ilmenite (<0.1%)**	**Quartz (<0.5%)**	**Zircon (<0.1%)**	

Source of information:
Spanish Geological Survey.
Calizas españolas, 1990, ITGE.

Sources of more information

Type of information	Name of provider	URL
This data sheet	Instituto Geológico y Minero de España (IGME)	http://www.igme.es/
Non-commercial directory	RockMaquina – Piedras naturales, maquinaria y equipos.	
Commercial directory	Itrisa, S.A.	https://www.itrisa.com
Scientific publication		
Other publication		

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