

Crema Altea



Image source: tiendadelmarmol.net

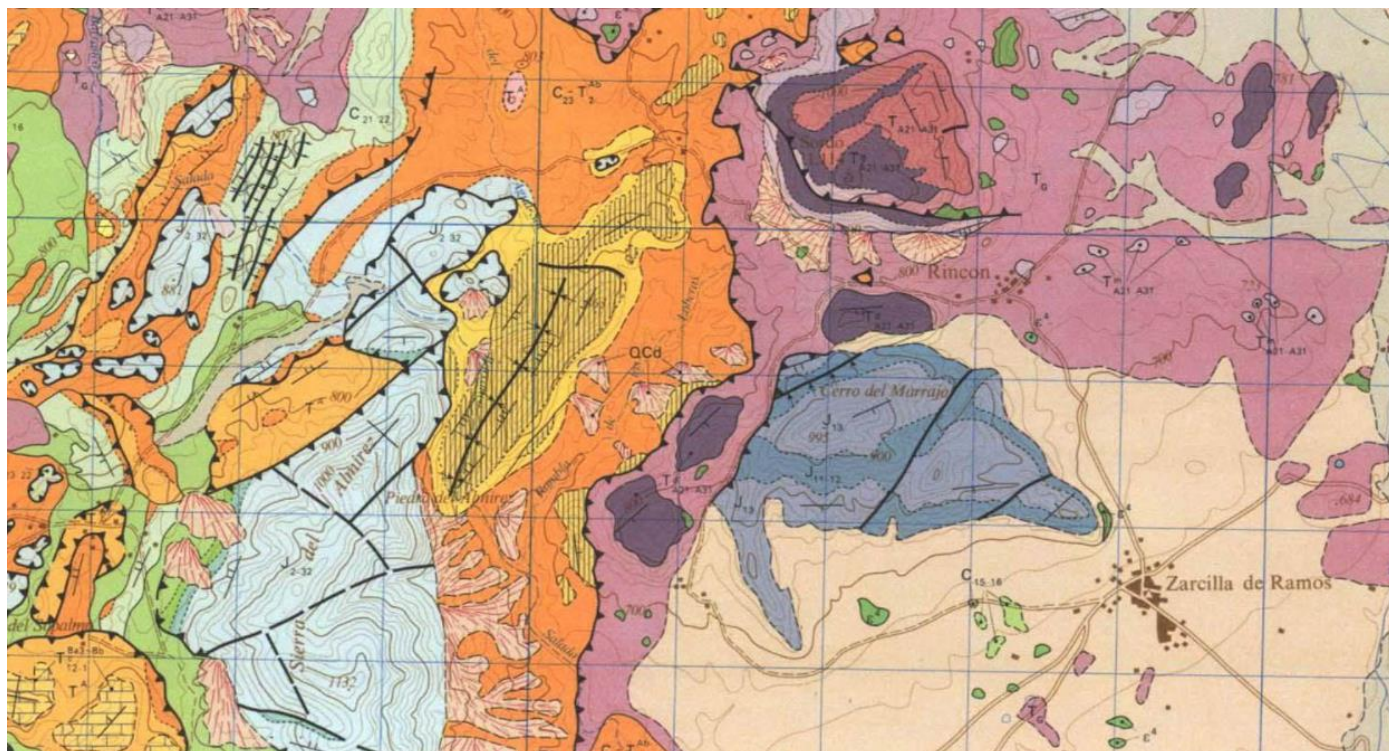
4 cm

Short description:

White-pink to white-green brecciated limestone with oosparitic clasts.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
Limestone	Brecciated limestone	Cream	Spain	Murcia	Zarcilla de Ramos	Zarcilla de Ramos

Geological setting



Geology:

Crema Altea quarries are located in the Subbetic Domain of the Betic Mountain Range. This limestone belongs to the Almirez Unit which includes materials with ages from Dogger to Barremiense.

Dogger materials include white or cream colored oolitic or pisolitic limestone. Sometimes the material between the oolites is somewhat silicified. Under the microscope, lamellibranchs, echinoderms, gastropod algae, bryozoans are also observed.

The Kimmeridgian-Tithonic materials correspond to marls that contain remains of Lamellibranchs, bryozoans and some lagenids. Limestones with crinoids are also observed.

Finally, the Neocomian-Barremian materials correspond to greenish-white marl-limestones with Ammonites.

Geological age: Jurassic (Dogger)

Geological unit: Almirez Unit

Application, use and heritage

Description:

There is no known historical use for this material. The activity in these quarries is very recent (20th century). The main use of this type of building rock (Crema Altea) is for paving and cladding in modern buildings.

Petrography

Description:

Massive brecciated limestone. Lithology of clasts is variable (oosparite, biosparite and crystalline limestones).

Source of information:

- 1) Geological Survey of Spain (IGME)
- 2) RocMaquina, Piedras Naturales, maquinaria y equipos. ISSN: 0214-0217.

Mineral composition

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

Mineral 1 (%)	Mineral 2 (%)	Mineral 3 (%)	Mineral 4 (%)			
Calcite (MM)	Dolomite (MM)	Quartz (AM)	Clay minerals (AM)			

Source of information:

- 1) Geological Survey of Spain (IGME)
- 2) RocMaquina, Piedras Naturales, maquinaria y equipos. ISSN: 0214-0217.

Physical properties

Apparent density (EN 1936) kg/m ³	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
2580	4.6	1.2	100.92	11.3

Real density (EN 1936) kg/m ³	Total porosity (EN 1936) % vol	Water absorption coefficient by capillary (EN 1925) (g/m ² x s ^{0,5})	Flexural strength under constant moment (EN 13161) MPa

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	

Resistance to ageing by thermal shock (EN 14066)			
Change in dynamic modulus of elasticity (increase: +; decrease: -) %	Change in open porosity (increase: +; decrease: -) %	Change in ultrasound pulse velocity (increase: +; decrease: -) %	Change in flexural strength under conc. load (increase: +; decrease: -) %

Abrasion resistance (EN 14157)			Resistance to salt crystallisation (EN 12370)	Breaking load at dowel hole (EN 13364)	
Method A - Wide Wheel Abrasion Test, mm	Method B - Böhme Abrasion Test, cm ³ / 50cm ²	Method C - Amsler Abrasion Test, mm	Change in mass (increase: +; decrease: -), %	Breaking load, N	Thickness of the test specimens, mm
19.5					

Slip resistance by means of the pendulum tester (EN 14231 / CEN/TS 16165)			Rupture energy (EN 14158), Joule	Thermal Conductivity (EN 1745), W/m·K
Tested surface finish	Slip Resistance Value — SRV			
	Dry test condition	Wet test condition		
Polished	45	12		

Source of information:

Mármoles Marín. Technical File. Crema Altea.
www.marmolesmarin.com

Sources of more information

Type of information	Name of provider	URL
This data sheet	Mármoles Marín. Technical File. Crema Altea.	www.marmolesmarin.com
Non-commercial directory	Spanish Geological Survey	www.igme.es
Commercial directory	RockMaquina – Piedras naturales, maquinaria y equipos.	
Scientific publication		
Other publication		

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