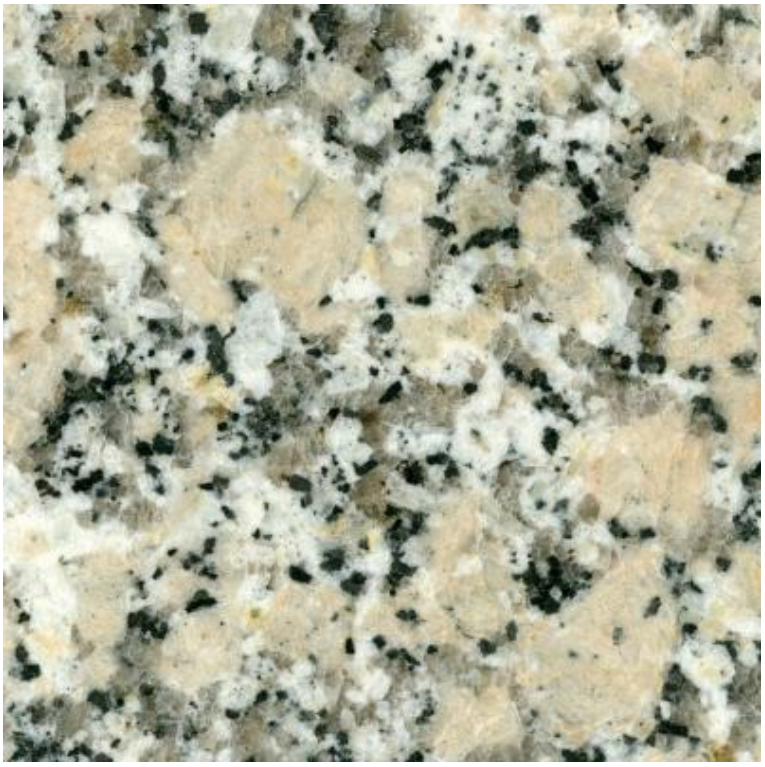
Gris Perla Crema

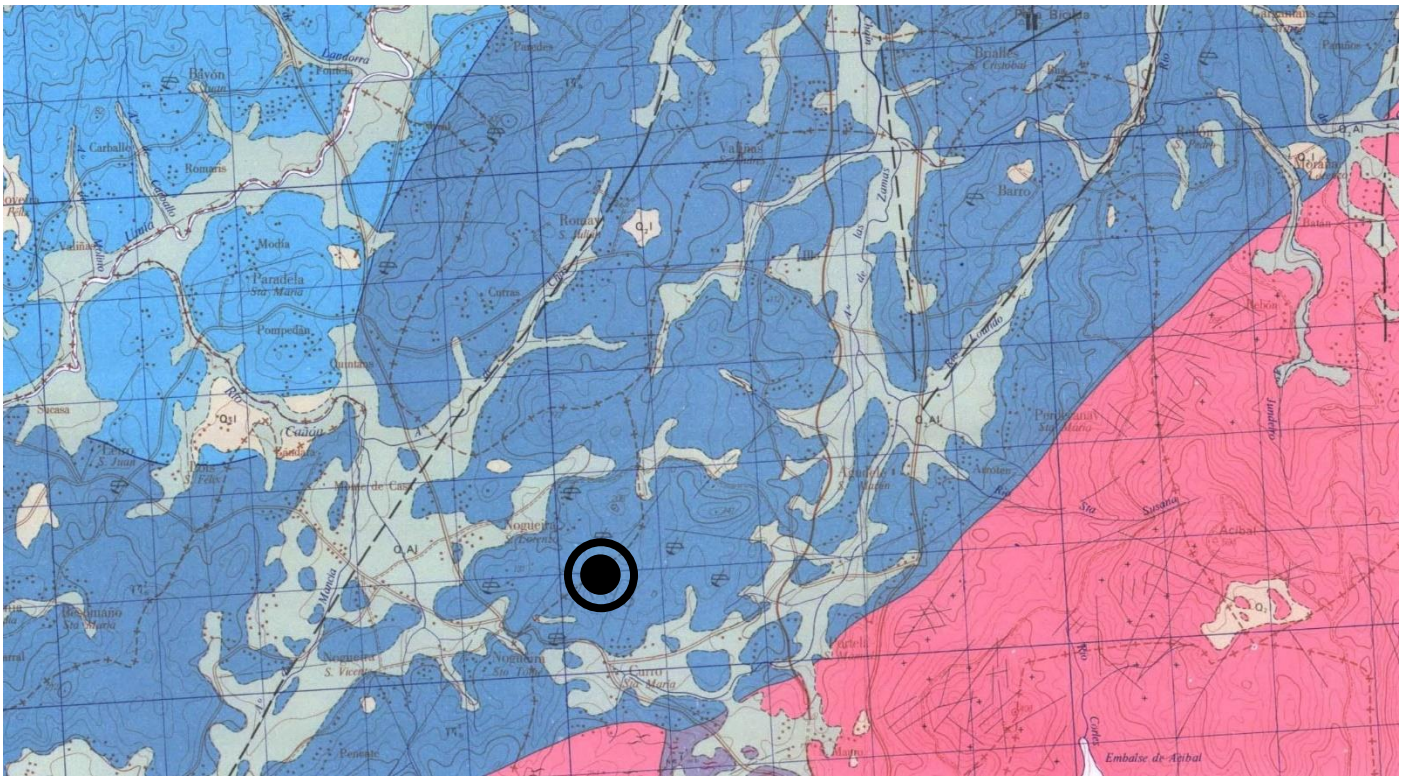


Short description: Hypidiomorphic texture with porphyritic tendency and coarse grain size.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
granite	monzonite	grey	Spain	Pontevedra	Meis	Meis

CC BY

Geological setting



Geology: Caldas de Reis massif, composed of a granite with varied facies, where the hypidiomorphic texture of porphyritic tendency and coarse grain size.

Production: Production takes place in various quarries.

Geological age: Late Pennsylvanian - Cisuralian.	
Geological unit: Caldas de Reis massif.	

Application, use and heritage

Description: Cobblestone of a square (http://dfg.es/material/gris-perla-crema/)

Petrography

Description: Texture: heterogranular, allotriomorphic, medium to coarse grained. Main Minerals: plagioclase (45%), microclinized orthoose (30%), quartz (15%) and biotite (7%). Accessory minerals: hornblende (3%), opaque minerals, apatite, sphene, zircon and epidote. Plagioclase, quartz and microcline not very heterometric and homogeneously distributed. Chloritized incipient biotite associated with amphibole.

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

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 (%)
Biotite (7%)	**Horne-blende (3%)**	**Microcline (30%)**	**Plagioclase (45%)**	**Quartz (15%)**		
Mineral 8 (%)	Mineral n (%)					

Source of information: https://www.marma.es/fotos/1343632785_sb6G.pdf

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
2650		**0.3**	**184**	**13.6**

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

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	
13.53	**48**			

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
15.8				**2950**	

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		
	74	**10**		

Source of information: https://www.marma.es/fotos/1343632785_sb6G.pdf

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		
Commercial directory	Marma	https://www.marma.es/fotos/1343632785_sb6G.pdf
Scientific publication		
Other publication		

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