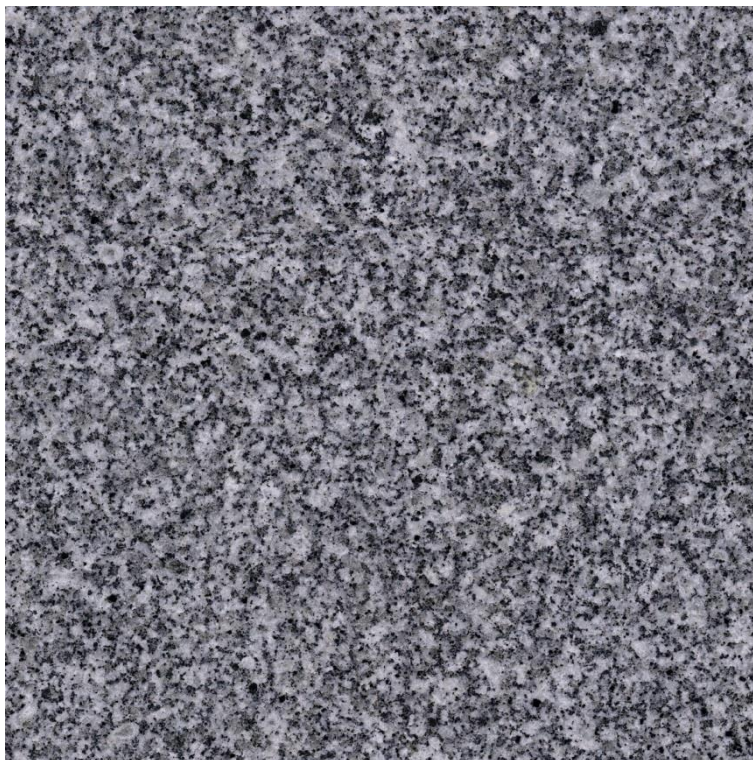


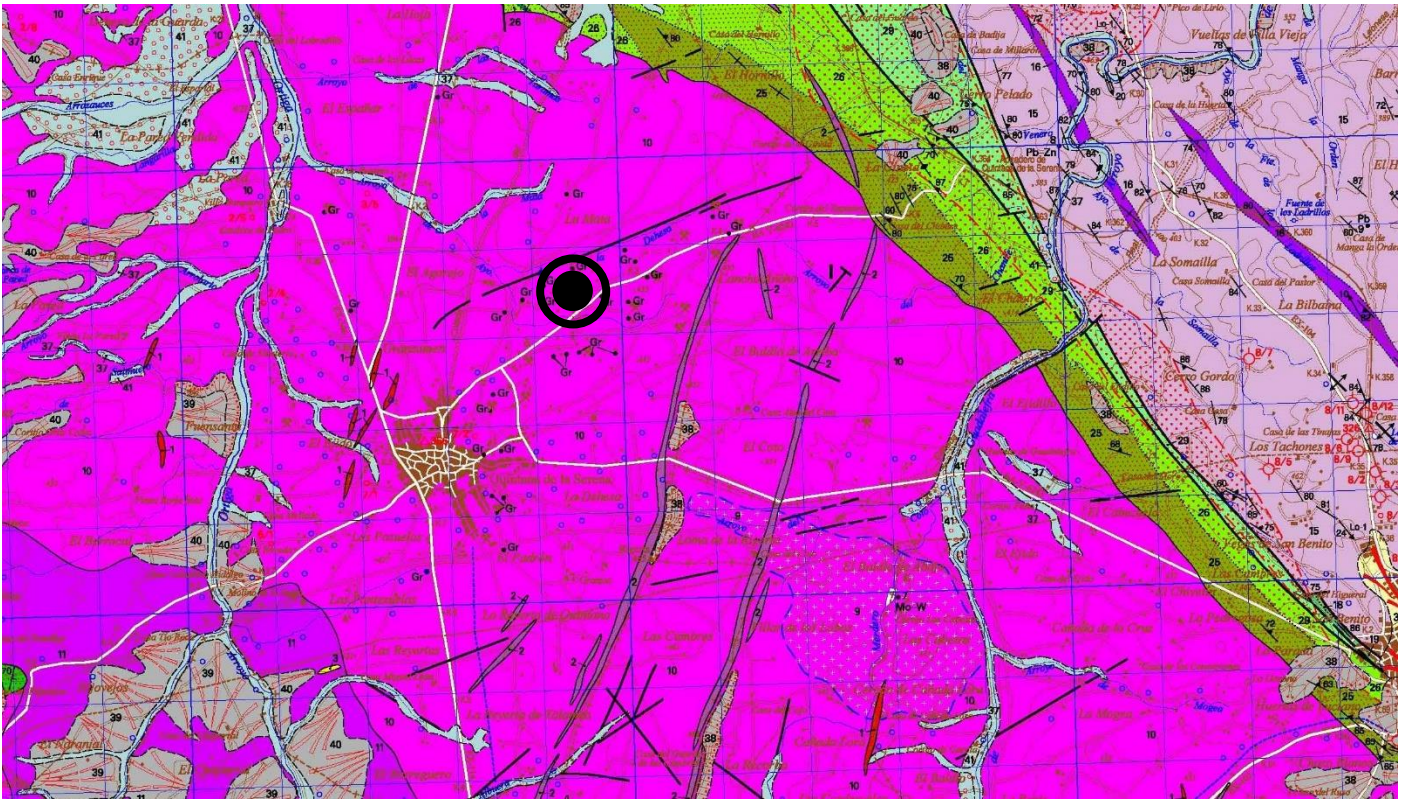
Gris Quintana



Short description: Fine grained biotitic granite, with a granular texture. It is light gray in color. Because they are abundant, biotitic minerals of a dark color give the rock its mottled appearance. It is common on occasions to be found within the granitic mass, accumulations of mafic minerals (mainly micaceous minerals), rounded nodules.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
granite	monzogranite	grey	Spain	Badajoz	Quintana de la Serena	Quintana de la Serena

Geological setting



Geology: The Quintana granodiorite, commercially known as “Quintana Gray Granite”, is part of the Los Pedroches Batholith, a magmatic body elongated in a NW-SE direction, subparallel to the regional structures. The commercial variety known as "Quintana Grey" corresponds to a fine-grained biotitic granite, with a granular texture. It is light gray in color, consisting mainly of quartz, alkali feldspar, plagioclase, and biotite. It is common on occasions to be found within the granitic mass, accumulations of mafic minerals (mainly micaceous minerals), forming more or less rounded nodules. Quintana granodiorite has three types, although the most exploited variety of ornamental granite is called “Quintana Gray”. The other varieties are pink (Gray Pink) and dark (Black Fantasy).

Production: The "Gris Quintana" granite is originally from Quintana de la Serena, a town located in Extremadura (Badajoz-Spain), where it is exploded in a large number of quarries in the area.

Geological age: Moscovian.

Geological unit: Quintana de la Serena massif.

Application, use and heritage



Description: Monument made up of the “Quintana Gray” granite.



Description: Building raised with "Quintana Gray" granite.

Petrography

Description: Granito de color gris claro, leucocrato, formado principalmente por: cuarzo, feldespato alcalino, plagioclasa y biotita. La roca presenta una textura subidiomórfica-xenomórfica, inequigranular, de tamaño de grano fino/medio, que da lugar a una roca homogénea, no orientada. La clasificación geológica de la roca, obtenida a través de la realización del correspondiente estudio petrográfico, la cataloga como un monzogranito biotítico. Light gray granite, formed mainly by: quartz, alkaline feldspar, plagioclase and biotite. The rock has a subidiomorphic-xenomorphic texture, inequigranular, with a fine to medium grain size, which gives rise to a homogeneous, non-oriented rock. The geological classification of the rock, obtained through the corresponding petrographic study, classifies it as a biotitic monzogranite.

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

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
2660	0.34	0.25	135.4	10

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	
	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: -) %
10.6			

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
16.5				2350	

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		

Source of information: Granitos de España. IGME. / Piedras Naturales de España. Anuario General 1988. Roc Maquina. / Granitos de España. ITGE. / Atlas de Rocas Ornamentales de Extremadura. Junta de Extremadura. / Piedra Natural. Granitos de España. FDP. / Piedras Naturales de España. Anuario 1988. Roc Maquina. / La Piedra Natural de España. Directorio 2000/01, 2002, 2004, 2007. Roc Maquina. / Granito español. ANGE.

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		
Scientific publication		
Other publication	Granitos de España. IGME.	

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