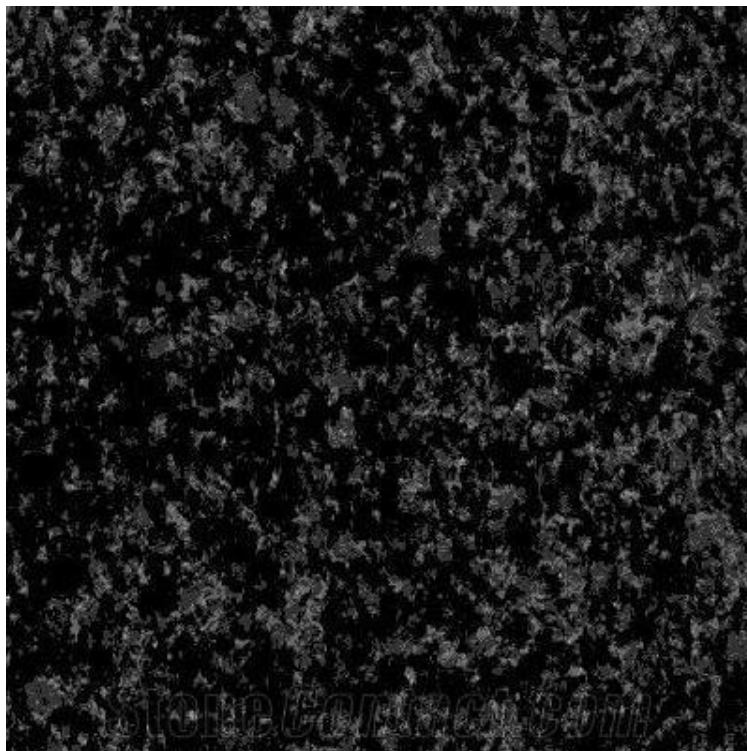


Negro Esmeralda

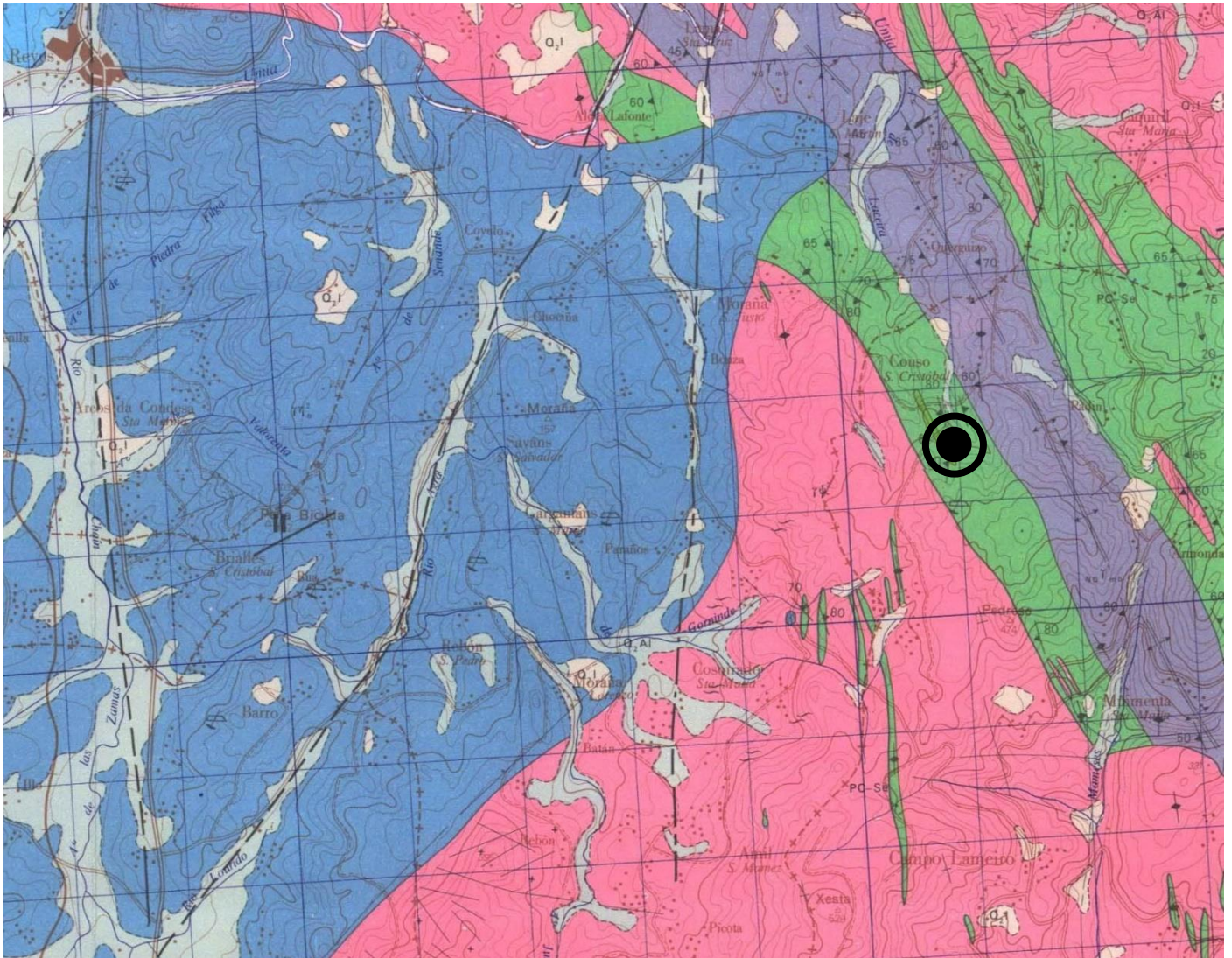
Negro Galicia



Short description: Melanocratic rock of fine grain and greenish color, with presence of metallic sulphides. Monzonite, black rock due to the high percentage of ferromagnesian minerals, being fine to medium grain, heterogranular and subidiomorphic.

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

Geological setting



Geology: Melanocratic diorite dike of fine grain and greenish color, with presence of metallic sulphides. Monzonite, black rock due to the high percentage of ferromagnesian minerals, being fine to medium grain, heterogranular and subidiomorphic.

Production: The production takes place in one quarry (Cantera Estrella).

Geological age: Paleozoic-Jurassic.

Geological unit: diorite dyke.

Application, use and heritage



Description: Church.

Petrography

Description: Gray granite with a slight pinkish tone, medium to coarse grain, compact and irregularly fractured.

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
2880		0.14	147	12.3

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
				3215	

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: Quiroga, J.R., Casares, A., Míguez, V., Vidal, J.R. (1997): La Piedra de Galicia. Xunta de Galicia, 319 págs. ISBN: 84-453-2037-8.

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	Quiroga, J.R., Casares, A., Míguez, V., Vidal, J.R. (1997): La Piedra de Galicia. Xunta de Galicia, 319 págs. ISBN: 84-453-2037-8.	
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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