

Granito de Villavieja

Gris Yecla

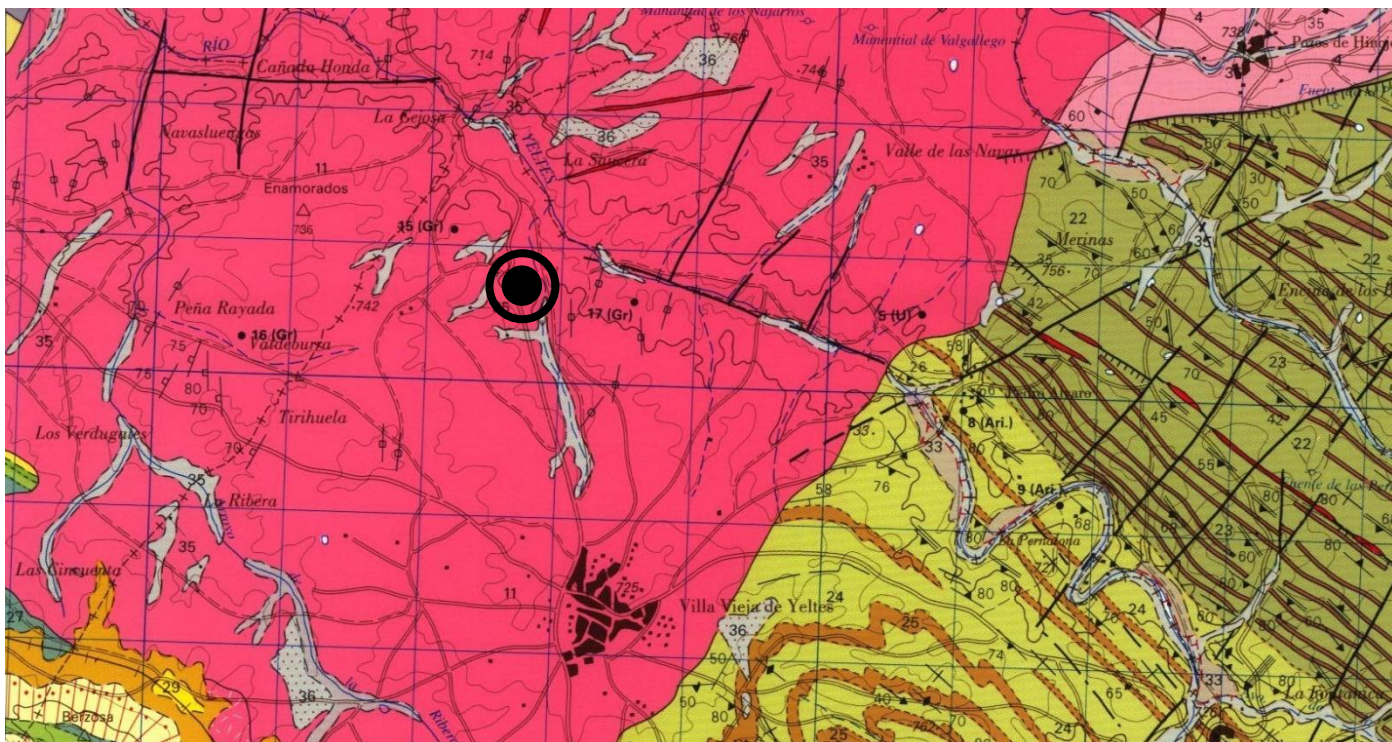


5 cm

Short description: Medium grained two mica granite, with some degree of alteration that affects homogeneously the entire rock and make polishing not possible.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
granite	granite	grey	Spain	Salamanca	Villavieja de Yeltes	Villavieja de Yeltes

Geological setting



Geology: Medium grained two mica granite, with some degree of alteration that affects homogeneously the entire rock and make polishing not possible. Inequigranular allotriomorphic texture and porphyritic tendency with development of K-feldspar grains.

Production: Several nearby quarries that take advantage of the natural outcrops of the rocks.

Geological age: Cisuralian (284 ± 8 Ma)

Geological unit: Villavieja de Yeltes granitic suite.

Application, use and heritage



Description: Villavieja de Yeltes Church.

Petrography

Description: The main components are quartz, K-feldspar, plagioclase, biotite and muscovite, the accessory minerals are cordierite, andalusite, sillimanite, apatite, rutile, zircon and a few opaque ones. The biotite presents xenomorphic to subidiomorphic forms with a size of 2-3 mm as the most frequent. The muscovite is the same size, although another type of muscovite can be distinguished, which occurs in large plates of up to 7 mm. Quartz occurs in large crystals of 10-15 mm in diameter. Feldspars are present in subidiomorphic to idiomorphic, tabular or hexagonal forms, with sizes of 4-5 mm, but up to 7-8 mm.

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
2620	0,8		135	14,3

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	
4	48	0	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: -) %
-6,9			

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				2100	

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		
		62		

Source of information:

http://www.pinacal.es/datos_tecnicos/variedad_info.asp?var=Granito%20VillaVieja&tipo=

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	Pinacal	http://www.pinacal.es/
Scientific publication		
Other publication		

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