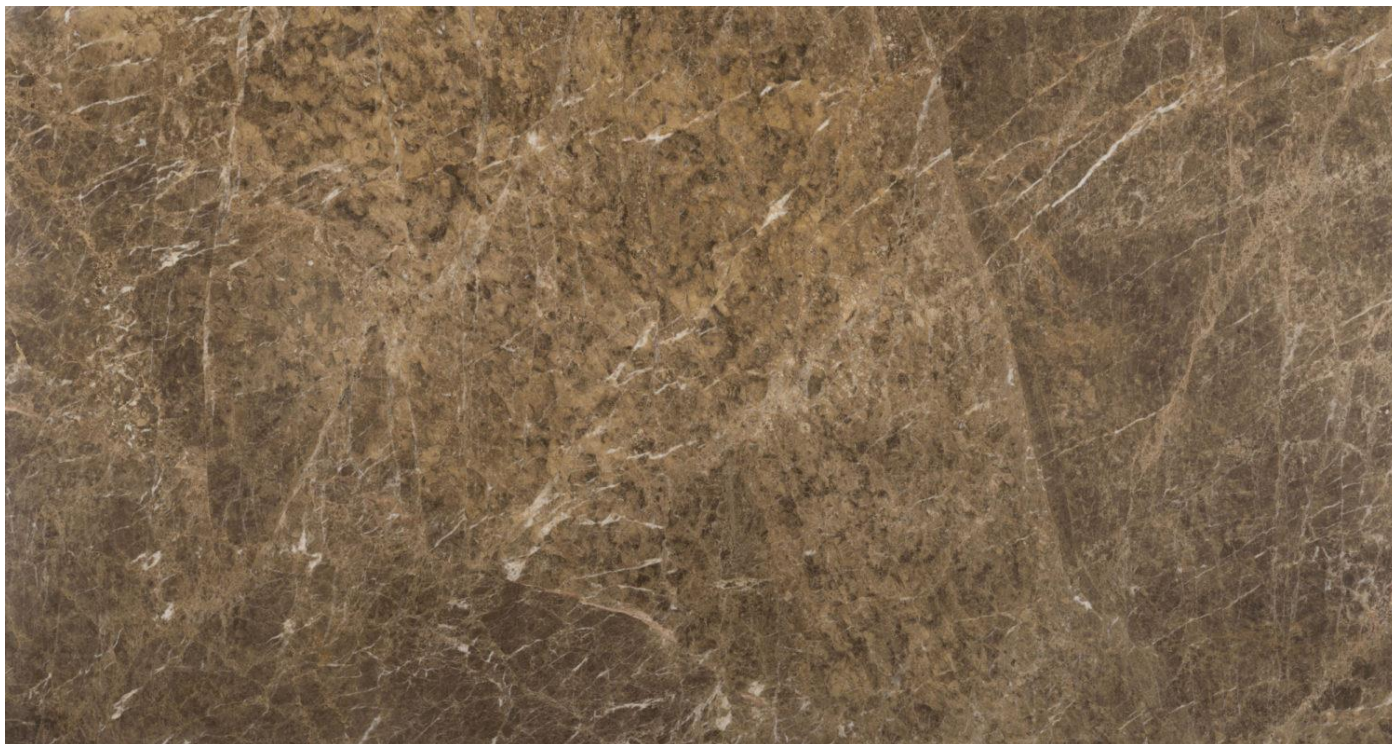


# Emperador Buñol

Marrón Brisa

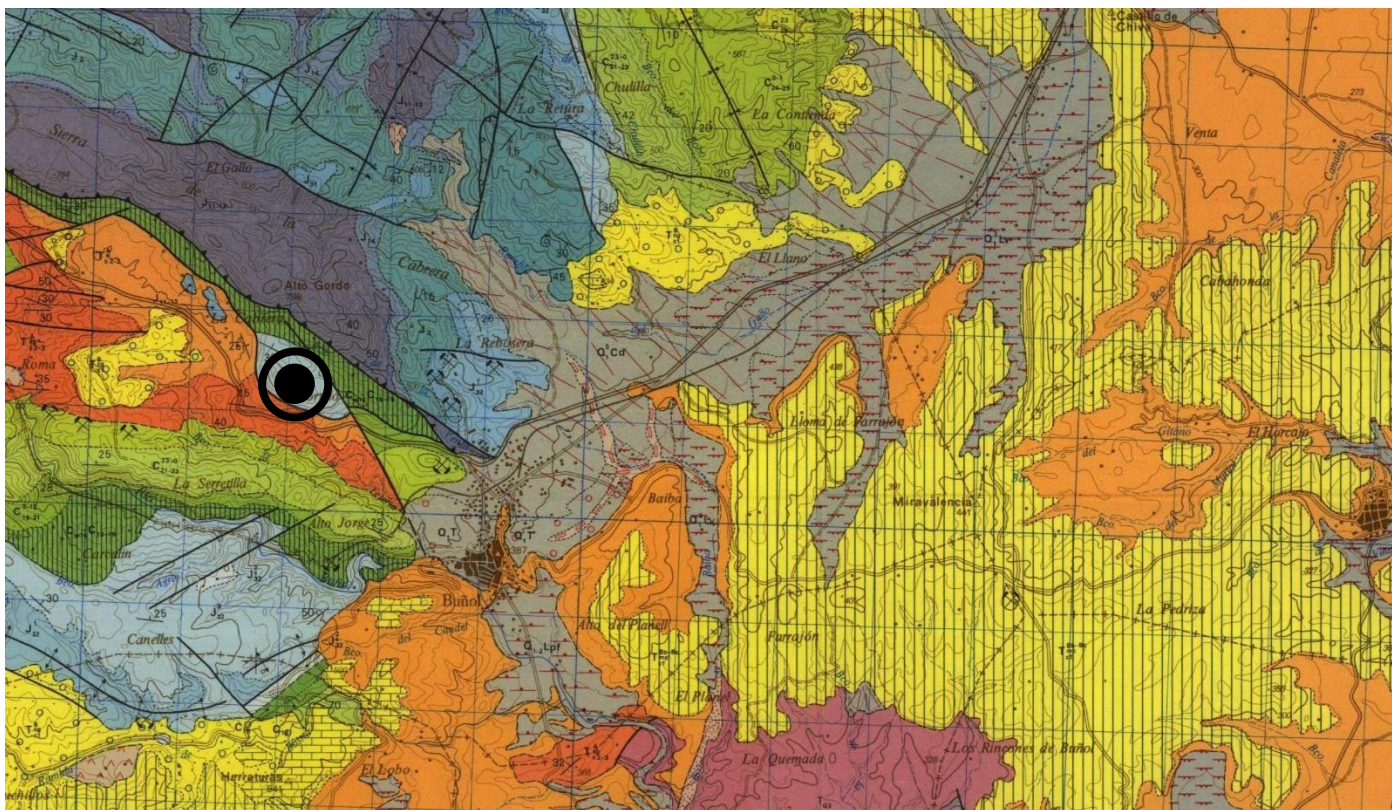


20 cm

**Short description:** Fine grained limestone.

| Commodity<br>(vocabulary) | Lithology<br>(vocabulary) | Typical<br>colour<br>(code list) | Place of origin |                                 |                             |                         |
|---------------------------|---------------------------|----------------------------------|-----------------|---------------------------------|-----------------------------|-------------------------|
|                           |                           |                                  | Country         | County / District /<br>Province | Municipality /<br>Community | Place/town /<br>Village |
| limestone                 | slatdolomitee             | brown                            | Spain           | Valencia                        | Buñol                       | Buñol                   |

# Geological setting



**Geology:** Calizas de grano fino, calizas con oncolitos y calizas oolíticas y pisolíticas, que culminan a techo con una secuencia de potencia muy variable, en la que alternan facies detríticas y de precipitación química, y que ha sido diferenciado ocasionalmente en cartografía.

Fine grained limestone, limestone with oncoliths and oolitic and pisolitic limestone, which culminate at the roof with a sequence that is highly variable in its thickness, in which detrital and chemical precipitation facies alternate, and which has been differentiated in cartography.

**Production:** The production is obtained in a quarry to the northwest of Buñol.

**Geological age:** Kimmeridgian-Tithonian (157.3- 145.5 Ma).

**Geological unit:** Higuieruelas y Pozuelo Formations.

# Application, use and heritage



**Description:** Flooring in a private residence.

# Physical properties

| Apparent density (EN 1936) kg/m <sup>3</sup> | 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 |
|----------------------------------------------|-------------------------------|----------------------------------------------------------|---------------------------------------------|----------------------------------------------------------|
| 2710                                         | 0,77                          | 2,13                                                     | 96,5                                        | 19,32                                                    |

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

| Frost resistance (EN 12371)                                 |                  |                                                                        |                  |                                                                                    |
|-------------------------------------------------------------|------------------|------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------|
| Technological Test (Test A)                                 |                  |                                                                        |                  | Identification Test (Test B):<br>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 <sup>3</sup> / 50cm <sup>2</sup> | Method C - Amsler Abrasion Test, mm | Change in mass (increase: +; decrease: -), %  | Breaking load, N                       | Thickness of the test specimens, mm |
|                                         |                                                                     |                                     |                                               |                                        |                                     |

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

**Source of information:** <http://stonebasiq.com/emperadorbunol.html>

## Sources of more information

| Type of information      | Name of provider                              | URL                                                       |
|--------------------------|-----------------------------------------------|-----------------------------------------------------------|
| This data sheet          | Instituto Geológico y Minero de España (IGME) | <a href="http://www.igme.es/">http://www.igme.es/</a>     |
| Non-commercial directory |                                               |                                                           |
| Commercial directory     | Stone basic                                   | <a href="http://stonebasiq.com">http://stonebasiq.com</a> |
| Scientific publication   |                                               |                                                           |
| Other publication        |                                               |                                                           |

|                     |                                                                                                        |                                                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
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|---------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|