

# De Lank Granite

A fine to medium grained biotite granite quarried at St Breward on Bodmin Moor, Cornwall, from a single geological body, the Bodmin Moor granite. Worked continuously since 1759 and used for the 1882 Eddystone Lighthouse, the Thames Embankment, Tower Bridge, Trafalgar Square, the Diana Memorial Fountain and the US Embassy in London.

## Strength

| PROPERTY                   | VALUE     |
|----------------------------|-----------|
| Compressive strength (dry) | 219 MPa   |
| Flexural strength          | 24.1 MPa  |
| Modulus of rupture         | 17.64 MPa |
| Young's modulus            | 32.3 GPa  |

## Physical

| PROPERTY             | VALUE                    |
|----------------------|--------------------------|
| Density              | 2,644 kg/m <sup>3</sup>  |
| Water absorption     | 0.20%                    |
| Open porosity        | 0.60%                    |
| Abrasion resistance  | 17.9                     |
| Salt crystallisation | 0.69%                    |
| Thermal expansion    | 7.243 × 10 <sup>-6</sup> |
| Polished stone value | 53                       |

## Durability

|                     |                               |
|---------------------|-------------------------------|
| Frost (freeze-thaw) | Not affected · 0.08% loss     |
| Service life        | Equal to that of the building |

## Slip resistance (USRV, wet)

|                             |    |
|-----------------------------|----|
| Dolly pointed (fine picked) | 77 |
| Fine axed                   | 75 |
| Flame textured              | 69 |
| Sawn                        | 51 |
| Honed                       | 45 |
| Polished                    | 20 |

## Mineral composition

|                      |     |
|----------------------|-----|
| Quartz               | 43% |
| Alkali feldspar      | 26% |
| Plagioclase feldspar | 21% |
| Muscovite mica       | 5%  |
| Biotite mica         | 4%  |
| Tourmaline           | 1%  |

## Finishes

|               |                                         |
|---------------|-----------------------------------------|
| Flamed        | External paving and cladding; non-slip  |
| Honed         | Smooth matte; interiors, sheltered work |
| Polished      | Reflective; interiors and bespoke       |
| Sawn          | Diamond-sawn; cladding, cills, kerbs    |
| Hand punched  | Hand-worked texture of fine points      |
| Dolly pointed | Brush hammered; highest slip resistance |

## Relevant product standards

|                     |                             |
|---------------------|-----------------------------|
| BS EN 1341          | Natural stone paving slabs  |
| BS EN 1342          | Natural stone setts         |
| BS EN 1343          | Natural stone kerbs         |
| BS EN 12058 / 12057 | Floor slabs and tiles       |
| BS EN 771-6         | Natural stone masonry units |
| BS 7533             | Pavement design and laying  |

### Available on request

- Declarations of Performance (BS EN 1341, 1342, 1343) and CE / UKCA marking statements
- Test certificates and petrographic description
- Responsible sourcing statement for BREEAM Mat O3 / Mat O5; samples in any finish