



Rockingstone Sandstone

Technical Data Sheet

Rockingstone Sandstone

Rockingstone Quarry, Bolster Moor

Crosland Hill, Huddersfield, West Yorkshire. HD4 7AB

Contact : Johnsons Wellfield Quarries Limited

E-mail: sales@johnsons-wellfield.co.uk

Website : <http://www.johnsons-wellfield.co.uk>

Tel: +44(0)1484 652311 Fax: +44(0)1484 460007

Grid Reference : - - - -

Compiled September 1997 and updated in September 1999 and May 2000

This data sheet was compiled by the Building Research Establishment (BRE). Where possible, data collected in earlier surveys has been used to help interpret the test results. The data sheet was compiled in September 1997 and updated in September 1999 and May 2000 using the results of tests carried out to the proposed European Standards. The work was carried out by BRE as part of a Partners in Technology Programme funded by the Department of the Environment, Transport and the Regions and Johnson Wellfield Quarries Ltd and does not represent an endorsement of the stone by BRE.

General

The quarry is located on Bolster Moor near Huddersfield. Block sizes of up to 3000 x 1500 x 1200 mm are available along with veneers and paving material up to a maximum of 3.5 m² ranging from 30 – 100 mm in thickness. There are large reserves of material.

Petrography

Rockingstone Sandstone is from the Millstone Grit of Carboniferous age. It is a medium to coarse-grained slightly micaceous sandstone, pale yellow buff in colour with red/brown veining.

Expected Durability and Performance

It is important that the results from the individual tests are not viewed in isolation. They should be considered together and compared to the performance of the stone in existing buildings and other uses. Sandstones from the Millstone Grit series are traditionally acknowledged as generally being a very durable building and paving stone and have been used extensively in many towns and cities in the UK. Rockingstone sandstone appears to be a durable stone that is not effected by acid rain or air pollution. In addition, the low weight lost in the saturated sodium sulphate crystallisation test indicates good resistance to salt damage (for example in coastal locations or from de-icing salts). The resistance to frost result indicates that the stone is not affected by the action of freeze

thaw and in conjunction with the saturated sodium sulphate crystallisation test indicates that the stone should have good frost resistance. The compressive and flexural strength of the stone is mid-range in comparison with other UK sandstones. The abrasion resistance is comparable with other York paving stones and should be suitable for use in heavily trafficked areas.

Overall, should be suitable for use in most aspects of construction including flooring, paving, load bearing masonry and cladding including areas where a long service life is needed or where high salt concentrations are expected.

Test Results – Rockingstone Sandstone

Safety in Use		
Slip Resistance ^(Note 1)	78-82	Values > 40 are considered safe.
Abrasion Resistance ^(Note 1)	15.7 mm	Values <23.0 are considered suitable for use in heavily trafficked areas
Strength under load		
1) Compression ^(Note 2)	85-119.9 MPa	Loaded perpendicular to the bedding plane ambient humidity
2) Bending ^(Note 1)	9.1-12.0 MPa	Loaded perpendicular to the

		bedding plane ambient humidity
	Not determined	Loaded parallel to the bedding plane ambient humidity
Porosity and Water Absorption		
1) Porosity ^(Note 3)	9.9%	
2) Saturation Coefficient ^(Note 3)	0.67 – 0.70	
3) Water Absorption	2.7-2.8% (by wt)	
4) Bulk specific gravity	2390kg/m ³	
Resistance to Frost		
Flexural strength after Freeze/Thaw Test ^(Note 1)	8.7 MPa	Loaded perpendicular to the bedding plane ambient humidity
Resistance to Salt		

Sodium Sulphate Crystallisation Test (Note 3)	1.3% Mean wt loss	
Sodium Sulphate Crystallisation Test (Note 3) (saturated solution)	25.7% Mean wt loss	
Resistance to Acidity		
Acid Immersion Test ^(Note 4)	Pass	

(Test methods Note 1 = EN1341, Note 2 = EN 1342, Note 3 = EN 1341 /BRE 141, Note 4 = BRE 141)

Tests were carried out at BRE in 1997 and 2000