



Tenyard Hard York Sandstone

Technical Data Sheet

Tenyard Hard York Sandstone

Tenyard Quarry

Bradley House, Greengate Road,
Keighley, West Yorkshire, BD21 5LH

Contact : Bradley Natural Stone Products

Tel. 01535 610776

Grid reference : -- --

Compiled May 2000

This data sheet was compiled by the Building Research Establishment (BRE). It is based on data from current tests at BRE (2000). The data sheet was compiled in May 2000. 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 Bradley Natural stone Products and does not represent an endorsement of the stone by BRE.

General

Petrography

Ten Yard Hard York sandstone is a pale yellow-brown, laminated, non-calcareous, fine grained sandstone.

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. Sandstone is traditionally acknowledged as generally being a very durable building and paving stone and has been used extensively in many towns and cities in the UK. Tenyard Hard York sandstone appears to be a durable stone that will have good resistance to acid rain or air pollution. In addition, the negligible weight loss in the sodium sulphate crystallisation test indicates high resistance to salt damage (for example in coastal locations or from de-icing salts). From the frost test the stone should also have good frost resistance. The compressive and flexural strength of the stone is high for a sandstone in comparison with many sandstones. The density and compressive strength indicate that the stone should be suitable for use in heavily trafficked areas.

Overall, Tenyard Hard York should be suitable for use in most aspects of construction including flooring, paving, load bearing masonry and cladding. The stone is suitable for areas where a long service life is needed.

Test Results – “Tenyard” Hard Yorkstone

Safety in Use		
Slip Resistance ^(Note 1)	78	Wet. Values > 40 are considered safe.
Abrasion Resistance ^(Note 1)	Not tested	Values <23.0 are considered suitable for use in heavily trafficked areas
Strength under load		
1) Compression ^(Note 2)	160.9 MPa	Loaded perpendicular to the bedding plane ambient humidity
2) Bending ^(Note 1)	17.0 MPa	Loaded perpendicular to the bedding plane ambient humidity
	Not tested	Loaded parallel to the bedding plane ambient humidity

Porosity and Water Absorption		
1) Porosity ^(Note 3)	11.9%	
2) Saturation Coefficient ^(Note 3)	0.56	
3) Water Absorption	2.8% (by wt)	
4) Bulk specific gravity	2347kg/m ³	
Resistance to Frost		
Flexural strength after Freeze/Thaw Test ^(Note 1)	Not tested	Loaded perpendicular to the bedding ambient humidity
Resistance to Salt		
Sodium Sulphate Crystallisation Test ^(Note 3)	-1.38% Mean wt loss	
Resistance to Acidity		

Acid Immersion Test ^(Note 4)	Pass	
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(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 2000