

Kitemark™ Certificate

This is to certify that:

Naylor Drainage Limited
Clough Green
Cawthorne
Barnsley
S75 4AD
United Kingdom

Holds Certificate Number:

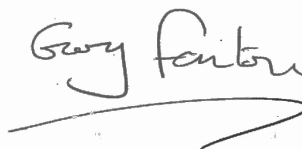
KM 20173

In respect of:

BS EN 295
Vitrified clay pipes & fittings & pipe joints for drains and sewers

This issues the right and licence to use the Kitemark in accordance with the Kitemark Terms and Conditions governing the use of the Kitemark, as may be updated from time to time by BSI Assurance UK Ltd (the "Conditions"). All defined terms in this Certificate shall have the same meaning as in the Conditions.

The use of the Kitemark is authorized in respect of the Product(s) detailed on this Certificate provided at or from the above address.



For and on behalf of BSI:

Gary Fenton, Global Product Certification Director

First Issued: 20/03/1992

Latest Issue: 10/02/2016



Kitemark™ Certificate

No. KM 20173

BS EN 295:2013 - Vitrified clay pipes and fittings and joints for drains and sewers.

General

Pipes and fittings detailed in this schedule may be supplied with or without sockets. Pipe diameters are described by nominal bore (DN) size and crushing strengths (FN).

Part 1 - Requirements for Vitrified Clay Pipes and Fittings.

A – Pipes

1. Spigot Controlled Jointing System G known as: Densleeve

Nominal Size (DN)	Minimum Crushing Strength (FN) kN/m
100	34
150	40
200	56
225	45
250	70
300	72

2. Spigot Controlled Jointing System G known as: Hatherware 'Thermachem'

Nominal Size (DN)	Minimum Crushing Strength (FN) kN/m
100	34
150	40
225	45
300	72

3. Spigot Controlled Jointing System known as: System 2000

Nominal Size (DN)	Minimum Crushing Strength (FN) kN/m
DN 600 only	72

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A – Pipes (continued)

4. Spigot Controlled Jointing System known as: Densal Plus

Nominal Size (DN)	Minimum Crushing Strength (FN) kN/m
300	72
375	64
400	64
450	72
500	80

5. Spigot Controlled Jointing System known as: Revit

Nominal Size (DN)	Minimum Crushing Strength (FN) kN/m	Minimum Declared Jacking Strength (MN) Clause 4.3.4
300	72	1.3
375	48	2.3
400	64	2.7
450	72	3.0
500	80	6.2
600	96	7.3

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B – Fittings - (All System G)

Pipeline connections of all sizes up to and including DN 700.

Fittings Group

Angle of Curvature of Branch Angle (Degrees)

Taper and Splay Pipes	
Access and Inspection Pipes & Chambers, Channels and Taper Channels	
Bends, Taper and Rest	11½, 15, 22½, 30, 45, 60, 75 & 90
Bends -- Thermachem	11½, 22½, 45 & 90
Channel Bends, Access and Inspection Bends	10, 11¼, 15, 22½, 30, 45, 50, 60, 70,90,115, 140 & 165
Junctions	30, 45, 60 & 90
Junctions -- Thermachem	45 & 90
Channel Junctions & Access Junctions	30, 45, 60 & 90
Saddles and Oblique Saddles	45 & 90
Taper Channel Bends	11¼, 15, 22½, 30, 45, 60 & 90
Trapped Gullies, Low Back Traps, Syphons and Interceptors	
Trapless Gullies, Hoppers and Raising Pieces	
Saddle Fitting Joint DN 150	

C - Flexible Mechanical Joints

When used in conjunction with the pipes and fittings covered by this Licence, the following joints comply with BS EN 295:

Trade Name of Joint/Fitting	Jointing System	Nominal Bore	Relevant Part of BS EN 295
Denseal Plus	Denseal Plus	DN 300 - DN 500	Part 1
Densleeve	System G	DN 100 - DN 300	Part 1
System 2000	System 2000	DN 600	Part 1
Band-Seal ¹	Band-Seal	DN 100 - DN 1000	Part 4
Denlok®	Denlok®	DN 150 - DN 700	Parts 1 & 7
Revit	Revit	DN 300 - DN 600	Parts 1 & 7

¹ This range includes adaptor couplings; Type 1; 2A & B; bushes.

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Part 5 - Perforated Vitrified Clay Pipes and Fittings²: Denline Range

Nominal Size (DN)	Crushing Strength kN/m	Perforation Area Type
75	20, 22 & 28	A
100	20, 22 & 28	A
125	20, 22 & 28	A
150	20, 22 & 28	A
200	24	A
225	28	A
250	30	A
300	36	A
375	38	A
400	38	A
450	43	A
500	48	A
600	57	A
700	66.5	A



² Fittings as per Section B on Page 4

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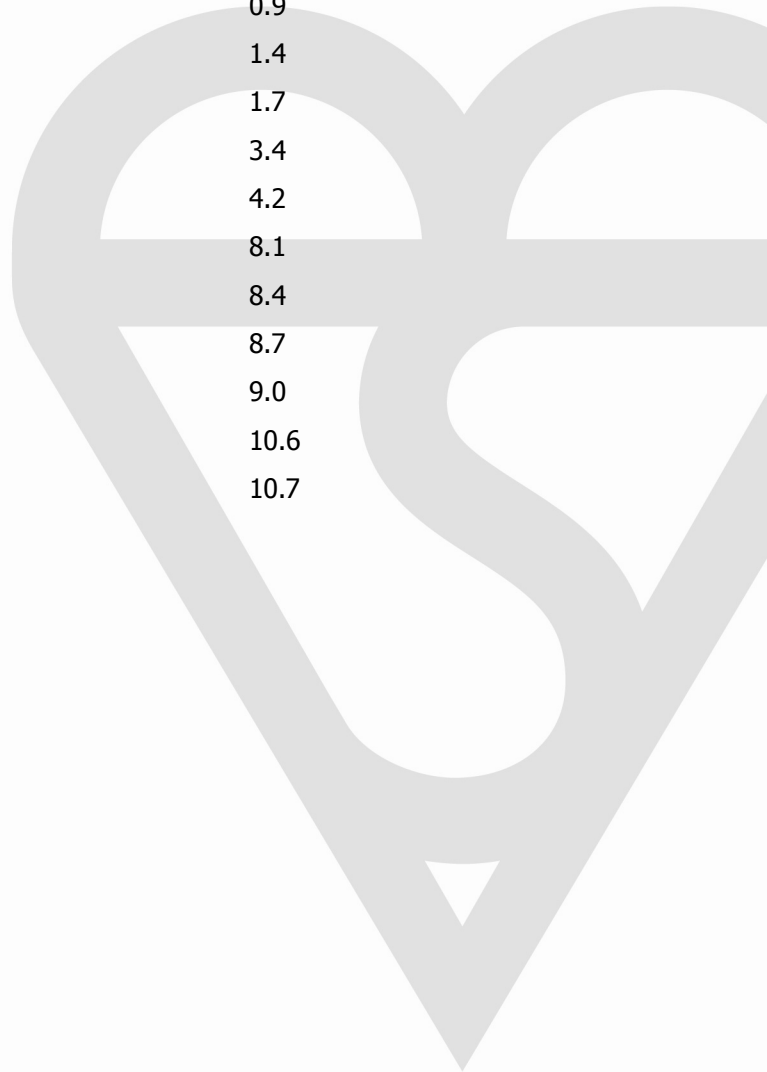
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Part 7 - Vitrified clay pipes and joints for pipe jacking : Denlok® Range.

Nominal Size (DN)	Minimum Crushing Strength (kN/m) Clause 4.3.1	Minimum Declared Jacking Strength (MN) Clause 4.3.4
150	64	0.9
200	80	1.4
225	81	1.7
250	100	3.4
300	120	4.2
400	160	8.1
450	144	8.4
500	120	8.7
525	126	9.0
600	144	10.6
700	112	10.7



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