

PERCOLATION TESTS & CALCULATIONS

For the proposed installation of a new soak away system

Based on BS6297 – Design and Installation of Small Sewage Treatment Works and Cesspools

Address: PEAR TREE COTTAGE, BOTLEY ROAD, HORTON HEATH SO50 7DT

Calculations

Result of 1st Percolation Test

(a) Depth of water (mm) **250**

(b) Time taken to soak away (secs) **5220**

Percolation Value (V_p) = (b) ÷ (a)

20.88 (secs)

Result of 2nd Percolation Test

(a) Depth of water (mm) **250**

(b) Time taken to soak away (secs) **4500**

Percolation Value (V_p) = (b) ÷ (a)

18 (secs)

Result of 3rd Percolation Test

(a) Depth of water (mm) **250**

(b) Time taken to soak away (secs) **4620**

Percolation Value (V_p) = (b) ÷ (a)

18.48 (secs)

Calculations (continued)

Average V_p Value of test 1, 2 & 3 19.12 (secs) (This is known as the Percolation Value)

Number of persons (P) to be served
by the new system 3

(Allow a realistic figure here, e.g for a 3 bedroom house, 4 to 5 persons)

Area of drainage trench (A_t) required = $P \times V_p \times 0.25$ (or 0.2)

Substituting the values given above: A_t = 3 x 19.12 x .2
= 11.47 square metres

Width (W) of new drainage trench = 1.5 metres

Length (L) of new drainage trench = $A_t \div W$
= 11.47 $\div$ 1.5 metres
= 7.65 metres

Notes

Test was carried out on July 9, 2026.

Test hole filled overnight.

Hole size was 1m x .6 x .8 and filled to a depth of 250mm with water.

First test conducted at 8am.

Second test conducted at 1pm.

Third test conducted at 830am on the next day, July 10, 2026.