

ISO 12236 “ Geosynthetics ” Static Puncture Test (CBR test) “ Testing Equipment

Description

5 Apparatus

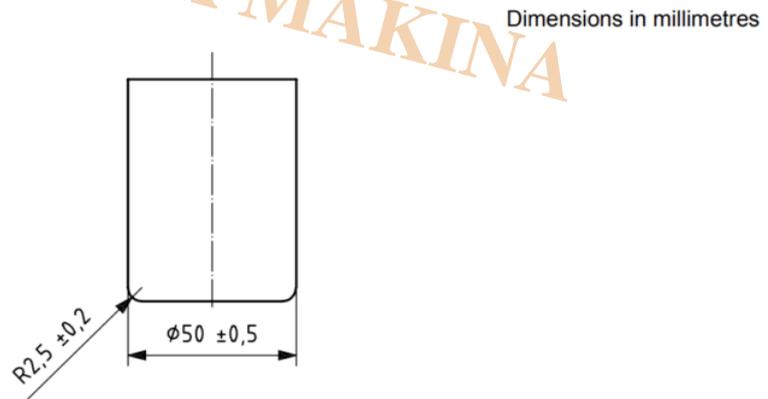
5.1 Testing machine.

The testing machine shall be of class 1 or class 0 in accordance with ISO 7500-1 and shall be capable of the following:

- a constant rate of displacement of (50 ± 5) mm/min;
- recording force and displacement;
- providing an autographic read-out of force and displacement.

5.2 Plunger.

A stainless steel plunger with a diameter of $(50 \pm 0,5)$ mm is used. The radius of the leading edge of the plunger shall be $(2,5 \pm 0,2)$ mm (see Figure 2).

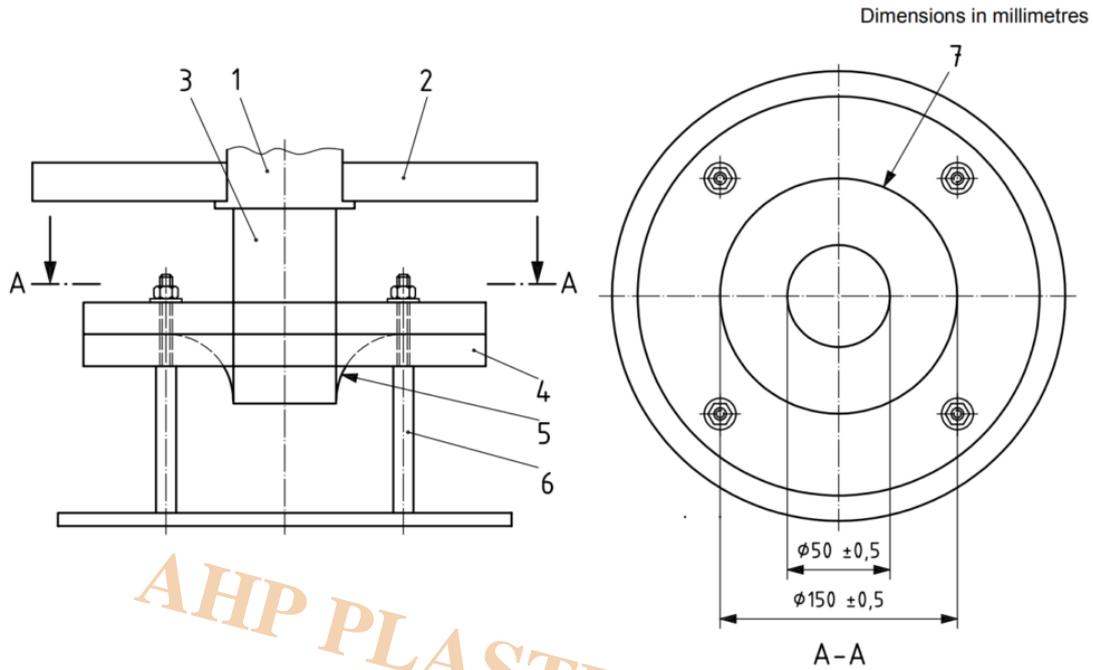


NOTE This figure is not to scale.

Figure 2 — Plunger

5.3 Clamping system.

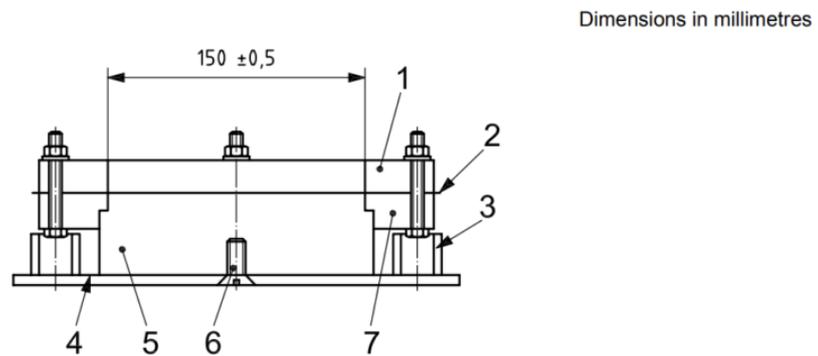
The clamping system shall prevent slippage or cutting of the specimens. The internal diameter of the clamping rings shall be $(150 \pm 0,5)$ mm. Examples of a clamping system and a guide block are shown in Figure 3 and Figure 4. The surfaces should be arranged so that the distance between the inner diameter of the ring and the gripping zone (i.e. start of serration, corrugations, etc.) does not exceed 7 mm.



Key

- | | |
|------------------|------------------------------|
| 1 load cell | 5 specimen |
| 2 cross head | 6 support frame or CBR mould |
| 3 plunger | 7 rounded inside edges |
| 4 clamping rings | |

Figure 3 — Example of clamping system device



Key

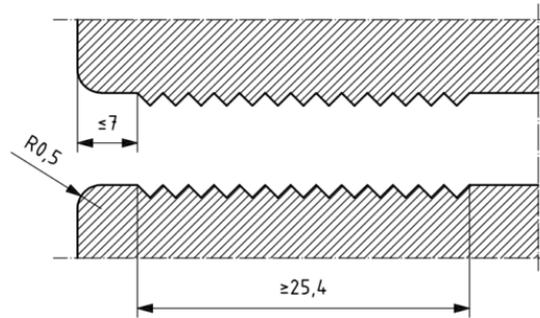
- | | |
|-----------------------|-----------------------|
| 1 upper clamping ring | 5 guide block |
| 2 specimen | 6 screw |
| 3 tube | 7 lower clamping ring |
| 4 clamping aid | |

NOTE 1 This figure is not to scale.

NOTE 2 Number of screws to suit the clamping rings being used.

a) Example of guide block used

Dimensions in millimetres



NOTE This figure is not to scale.

b) Example of details of serrated surfaces

Figure 4 — Examples of guide block and details of serrated surfaces

8 Procedure

Secure a specimen between the clamping rings of the clamping system (see Figure 3), e.g. by using a guide block [see Figure 4 a)]. Place the specimen and clamping system in the testing machine. Advance the plunger (see Figure 2) onto and through the specimen at a rate of (50 ± 5) mm/min and start recording the displacement at preload of 20 N. Repeat the procedure on the remaining specimens.



Static Puncture Test (CBR test) according to ISO 12236

- Max load 50KN
- Body steel
- Both ends are male adapters
- According to ISO 12236

Category

1. Equipment for Standards
2. Standards