

DATA SHEET

Van Asbeck Apparatus for Flexibility Test on Hydraulic Bituminous Mixes



Van Asbeck Apparatus

General description

The scope of Van Asbeck apparatus is to test and assess the flexibility property and related impermeability to water under pressure of hydraulic bituminous mixes to be used to cover the water storage of dams.

The apparatus consists essentially of a steel cylindrical cell divided in two sections: the upper part that is the under pressure water container and the lower part consisting of a cone with opening in the lower end. These two parts are clamped together by two flanges (upper and lower) with the interposition of a 50 cm ID steel ring which contains the compacted bituminous sample. The lower conical part has to be filled by 2-2.5 mm dia. of glass spheres which support the compacted 50 cm diameter slab when it is subjected to 3 bar water pressure. The valve of the lower conical end is then opened and the glass spheres are removed at a rate of 250 g every 15 minutes to a total of 5 kg, thus forming a hollow space under the slab to a maximum depth of 5 cm. The water pressure is then maintained for another 5 hours. The asphalt slab should remain impervious during this flexibility test, even if fine surface cracks develop in the bottom of the slab.

The apparatus includes:

- Steel cylindrical cell
- Air pressure regulator
- Safety valve
- Series of inlet/outlet/water discharge /overflow valves
- Manometer
- Level indicator
- Confining steel ring with shaped steel plate for sample compaction preparation
- Overflow/water filling/ water discharge valves
- Air/Water pressure cylinder
- Sealing material
- 20 kg of 2-2.5 mm dia. glass spheres

Overall dimensions: (dia.x h) 700x1000 mm

Weight approx.: 100 kg

DATA SHEET

The apparatus require compressed air. For a suitable air compressor see accessories.



Disc Mould for Sample Preparation

Products

80-B0198

Van Asbeck apparatus for flexibility test on hydraulic bituminous mixes, complete with test cell with glass ball for asphalt plate 50cm x 5cm diameter, pressure gauge, water pump and pipes.

Accessories and consumables

86-D2015

Laboratory air compressor. 8 BAR max constant pressure. 230V/50Hz/1Ph

86-D2015/Z

Laboratory air compressor. 8 BAR max constant pressure. 110V/60Hz/1PH

80-B0198/1

Glass spheres 2-2.5 mm dia. 20 kg pack. For Van Asbeck apparatus