

Australian Standard™

Methods of sampling and testing asphalt

Method 9.1: Determination of bulk density of compacted asphalt—Waxing procedure

AS 2891.9.1—2005

1 SCOPE

This Standard sets out the method for determining the bulk density of compacted dense-graded asphalt using a waxing procedure.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2891 Methods of sampling and testing asphalt

2891.1 Method 1: Sampling of asphalt

2891.2.2 Method 2.2: Sample preparation—Compaction of asphalt test specimens using a gyratory compactor

2891.5 Method 5: Determination of stability and flow—Marshall procedure

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2891.1 apply.

4 SAFETY PRECAUTIONS

Molten wax can burn the skin. Protective gloves shall be worn whilst using the molten wax.

5 APPARATUS

The following apparatus is required:

- (a) *Balance* Top pan balance of sufficient capacity, with a limit of performance not greater than ± 0.5 g. The balance shall also be equipped with a means for weighting beneath the balance.
- (b) *Suspension device* Nylon loop or wire frame to suspend the asphalt sample on its side.
- (c) *Water container* Filled with water and fitted with an overflow device and of sufficient capacity to contain the suspended asphalt sample while maintaining a constant water level.
- (d) *Suspension bridge* To support the balance and suspension device above the water container.
- (e) *Paraffin wax bath* Capable of maintaining wax at a temperature about 10°C above its melting point.
- (f) *Paint brush* About 13 mm in width.
- (g) *Thermometer* Thermometer or other suitable temperature-measuring device graduated to 1°C or less with an uncertainty not exceeding 0.5°C covering a range of 0 – 100°C .