

Australian/New Zealand Standard™

AS/NZS 2891.14.1.1:2013

Methods of sampling and testing asphalt

Method 14.1.1: Field density tests— Determination of field density of compacted asphalt using a nuclear surface moisture-density gauge—Direct transmission mode

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CE-006, Asphalt and Sprayed Surfacing, to supersede AS/NZS 2891.14.1.1:1996.

METHOD

1 SCOPE

This Standard sets out the method for determining the field density of asphalt using a nuclear surface moisture-density gauge in the direct transmission mode of operation. The method is applicable to asphalt layers equal to or greater than 75 mm in thickness, and to asphalts having a nominal maximum size not greater than 40 mm.

Because of the variety of gauges available, this method does not detail the operation of the gauge, but refers the operator to the manufacturer's handbook.

A nuclear gauge gives an indirect measure of field density and hence requires calibration in accordance with AS 1289.5.8.4. Regular checks on the operation and the calibration of the gauge are also required.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1289 Methods of testing soils for engineering purposes

1289.5.8.4 Method 5.8.4: Soil compaction and density tests—Nuclear surface moisture-density gauges—Calibration using standard blocks

3 SAFETY PRECAUTIONS

The equipment used in this method utilizes radioactive materials, which may be hazardous to health unless proper precautions are taken. Therefore, it is essential that operators receive instruction on potential hazards and precautions, together with routine safety check procedures such as the use of personal radiation monitors, source leak testing and the use of radiation survey meters. Statutory regulations cover the use and transport of radioactive substances and users need to ensure that these regulations are complied with, for the State or Territory in which the instrument is to be used.