

Australian/New Zealand Standard®

Methods of testing bitumen and related roadmaking products

Part 1: Precision data—Definitions

1 SCOPE This Standard defines terms used to express the precision of the test result obtained from a test method, and the terms used in the presentation of precision data and takes precedence over existing Standards definitions.

2 REFERENCED DOCUMENT The following document is referred to in this Standard:

AS

2706 Numerical values—Rounding and interpretation of limiting values

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Accuracy—the closeness of agreement between the true value and the mean of the results.

NOTE: The smaller the systematic component of the experimental errors which affect the results, the more accurate is the procedure.

3.2 Precision—the closeness of agreement between mutually independent test results obtained under stipulated conditions.

NOTES:

- 1 Precision depends only on the distribution of random errors and does not relate to the true value, conventional true value or specified value.
- 2 Repeatability and reproducibility are concepts of precision.

3.3 Repeatability—the closeness of agreement between mutually independent test results obtained under repeatability conditions.

3.4 Repeatability conditions—conditions where mutually independent test results are obtained with the same method on identical test material in the same laboratory by the same operator using the same equipment within short intervals of time.

3.5 Reproducibility—the closeness of agreement between test results obtained under reproducibility conditions.

3.6 Reproducibility conditions—conditions where test results are obtained with the same method on identical test material in different laboratories with different operators using different equipment.

3.7 Test result—the value of a characteristic determined by carrying out a specified test method.

NOTE: The test method may specify that a number of individual observations be made and their average reported as the test result. It may also require standard corrections to be applied, such as correction of gas volumes to standard temperature and pressure. Thus, a single test result can be a result calculated from several observed values.

4 ROUNDING Where required, the test results shall be rounded to one unit in the last place retained as indicated in AS 2706.

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