

**METHOD OF TEST FOR THE DETERMINATION OF PERCENT COMPACTION OF COMPACTED BITUMINOUS PAVING MIXTURE (MRD METHOD)**

LS-287 R16

**3. TEST PROCEDURE**

- 3.1 Determine the thickness of the test specimen according to the procedure outlined in ASTM D3549 and record the average of 4 measurements..... \_\_\_\_\_
- 3.2 Determine the bulk relative density of the pavement sample according to the test procedure outlined in LS-262..... \_\_\_\_\_
- 3.3 Determine the theoretical maximum relative density of the pavement sample according to the test outlined in LS-264..... \_\_\_\_\_

**4. CALCULATION**

4.1 The percent compaction is given by the equation: ..... \_\_\_\_\_

$$\% \text{ Compaction} = \left( \frac{\text{BRD}}{\text{MRD}} \times 100 \right) + C$$

Where:

- BRD = bulk relative density of the pavement sample
- MRD = theoretical maximum relative density of the pavement sample
- C = thickness correction factor (0.1% for each whole millimetre that the pavement course thickness is less than 40 mm)

**6. GENERAL NOTES**

- 6.1 The pavement sample taken for establishing the thickness and bulk relative density must be free from distortion or cracks or foreign material, and must consist of a minimum of a 150 mm diameter core with a minimum mass of 1000 g, or a sawn sample of the same minimum mass..... \_\_\_\_\_
- 6.2 Where desirable, specimens may be separated from other layers by shearing or other means provided a well defined construction plane is achieved..... \_\_\_\_\_

**COMMENTS**