

SAMPLING METHOD MD2

DIVISION OF A SAMPLE BY QUARTERING

1 SCOPE

This method describes the division of a sample of granular material by quartering.

2 APPARATUS

2.1 A flat spade.

2.2 A small canvas sheet.

3 METHOD

The method is illustrated in Figure 4.

In this method the material is first thoroughly mixed on a hard, clean surface and then formed into a cone in the centre of the surface.

If the material is inclined to segregate, reform the cone so that the material is thoroughly mixed. Now flatten the cone and divide it into four even quarters and separate these from each other. Remove two opposite quarters and mix the two remaining quarters together again.

Repeat this process until a sample of the required size is obtained. (See notes 4.1 and 4.2.)

4 NOTES

4.1 If a hard, clean surface is not available, the quartering may be done on a canvas sheet. (See Figure 5.)

Mix the material on the canvas sheet with a spade, or mix it by picking up each corner of the sheet and pulling it over towards the opposite corner. Form a cone with the material and then flatten the cone. Divide again into four quarters. If the surface under the sheet is too uneven, a pipe or rod can be inserted under the sheet directly beneath the middle of the cone. Both ends of the rod are then lifted, leaving the sample divided into two equal parts. Leave a fold of canvas between the two halves. Now repeat the process by inserting the rod at right angles to the previous division and lifting it so that four quarters are formed. Remove two opposite quarters and mix together the two remaining ones. Repeat the process until a sample of the required size is obtained.

4.2 If the material contains a lot of dust, the surface on which the quartering is done should be such that the dust will not be lost.

FIGURE 4
QUARTERING ON EVEN HARD CLEAN SURFACE

