

SCHEDULE 2

METHODS OF ANALYSIS

PART II

17.

DETERMINATION OF FINENESS OF POTASSIC BASIC SLAG

1 SCOPE AND FIELD OF APPLICATION

1. Exclusively to “Potassic basic slag” in Group 3(b) of Section A of the Table in Schedule 1 of the Fertilisers Regulations (Northern Ireland) 1990.

2 PRINCIPLE

2. By hand sieve shaking and dissolution of the soluble salts, the proportion of slag passing through the prescribed sieve is determined.

APPARATUS

3. Sieve having square apertures of 0.5 mm (500 microns); lower receiver to fit sieve. Test sieves conforming to British Standard 410 : 1986 are suitable.

4 PROCEDURE

4

Preparation of the sample

4.1 Thoroughly mix the sample and quarter down until a portion of about 100 g is obtained. Heat this portion at 100°C until dry, and thoroughly mix.

Sieving

4.2 Weigh to the nearest 0.1 g, 20 g of the dry sample and transfer to the sieve with the lower receiver attached. Shake the sieve for five minutes, frequently tapping the sides. Disintegrate soft lumps that can be caused to crumble by the application of a soft brush, taking care that the hard part of the brush does not make contact with the sieve and that the brush is not used to brush particles through the sieve.

Transfer the finer portion from the container into a 500 ml beaker and add 200 ml of previously boiled water. Stir and then filter through a weighed glass sintered crucible. Thoroughly wash the residue with water, dry and re-weigh the crucible. Calculate the weight of slag in the mixture with a particle size of less than 0.5 mm (A).

Weigh to the nearest 0.01 g about 20 g of the dry sample and transfer to a 500 ml conical flask. Add 200 ml previously boiled water and shake for 30 minutes. Filter through a weighed, sintered glass crucible, wash the residue thoroughly with water, dry and re-weigh the crucible. Calculate the total weight of slag in the mixture (B).

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5 EXPRESSION OF THE RESULTS

5. Express the fineness of the slag as

$$\frac{A}{B} \times 100.$$