Volume Measurement

Introduction

- Two European Standards concerning product volume measurement were introduced during 2000. They are referred to as: -
    - BS EN 12580:2000 'Soil Improvers and Growing Media - Determination of a Quantity'
    - BS EN 12579:2000 'Soil Improvers and Growing Media - Sampling'
- The CEN standards will be used by enforcement agencies to verify the quantity of material supplied, in the case of a volume dispute.
- Copies of the above Standards are available from British Standard Institute, telephone 020 8996 9001.
- From October 1997, Melcourt Industries Limited have been using an approved, modified version of this Standard, to calculate the volume of all those products sold by volume.
- Briefly, the volume of a consignment is calculated by establishing the bulk density of the particular product.
- Melcourt product volumes are guaranteed to be within the tolerances of -0/+5%.

Product Sampling

- BS EN 12579:2000 sets out the procedure to be followed.
- Particular care is needed to ensure that the samples taken are representative of the entire consignment.

Product Sampling Equipment

- 20, 50 and 75 litre calibrated cylinders
- Scales, accurate to 0.10 kilograms
- Straight edge
- Calculator
- Printed record sheets to record data

Normal Procedure - Loose Product

Bulk density volume assessments are made at regular intervals for each product. The results are recorded.

To load, for example, 80m³ of a particular product, the following procedure is used:-

- The 'tare weight' of the delivery vehicle is obtained by weighing the unloaded lorry.
- The loading shovel driver, knowing the bulk density of that particular product, will load a number of buckets into the delivery vehicle, i.e. 14 x 5.5m³ buckets = 77m³. He will then load the final quantity to make the volume ordered, i.e. 3m³.
- The loaded vehicle is then reweighed.
- The tare weight is deducted from the loaded vehicle weight, to give the net product weight.
- As a cross-check, the volume ordered is divided by the product weight to confirm the bulk density. This is then compared to the regular bulk density record sheets.

Normal Procedure - Packed Product

Bulk density volume assessments are made at regular intervals for each product. The results are recorded.

- Every 50th filled bag is taken from the packing line. It is weighed and its volume is calculated using the bulk density figure. All sampling data is recorded.
- In the event of any volume discrepancy, the bag filling dosing mechanism is adjusted to fill the correct bag volume.

Contact

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