

METHYLENE BLUE TEST SET

PRODUCT DESCRIPTION

The methylene blue test is performed to determine the clay content of the material passing through the 2 mm mesh sieve in concrete aggregates. This experiment can give an idea about the amount of clay in the fine aggregate with the help of dye absorption. However, it does not provide information about the type of clay mineral.

The MBV is simply a measure of the amount of reagent absorbed and is proportional to the amount of clay or organic material present. Methylene Blue Reagent solution is light sensitive. The solution shelf life is 4-6 months maximum, when stored in a dark cabinet in foil-wrapped amber bottles.



48-MB456340

PRODUCT MODEL

48-MB456340	Methylene Blue Test Set
48-MB456342	High Speed Agitator Motor, 400/600 r.p.m – 220-240 V 50-60 Hz
48-MB456344	Stirring Propeller, Ø 70 mm 4 flanks
48-MB456346	Filter Paper, 1 pack (100 pcs.), 125 mm dia, 95 g/m2, 0.20 mm thickness
48-MB456348	Methylene Blue, 100 g
48-MB456350	Kaolinite, 500 g
55-PP404204	Glass Burette, 50 ml x 0.1 ml with Burette Holder and Stand
55-PB406616	Plastic Beaker, 3000 ml
48-MB456354	Glass Rod, Ø 8x300 mm

PRODUCT STANDARDS

Standards	EN 933-9 NF P94-068 UNE 83 180 UNI 8520-15
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Methylene blue test set is supplied with;

- High Speed Agitator Motor, 400/600 r.p.m
- Stirring Propeller, Ø 70 mm 4 flanks
- Filter Paper, 1 pack (100 pcs.), 125 mm dia, 95 g/m2, 0.20 mm thickness
- Methylene Blue, 100 g
- Kaolinite, 500 g
- Glass Burette, 50 ml x 0.1 ml with Burette Holder and Stand
- Plastic Beaker, 3000 ml
- Glass Rod, Ø 8x300 mm

How to Do the Methylene Blue Experiment:

In order to carry out the experiment, first of all, a methylene blue solution must be prepared.

Step 1-) To prepare methylene blue solution, 10 g of methylene blue powder is added to 1000 g of distilled water. It is mixed for 45 minutes at 600 rpm. The prepared solution is kept for 24 hours. The solution must be used within 28 days.

Step 2-) Prepare 200 g aggregate mixture passing through a 2 mm (No. 10) sieve.

Step 3-) The prepared aggregate mixture is added to 500 g distilled water and mixed at 600 rpm for 45 minutes.

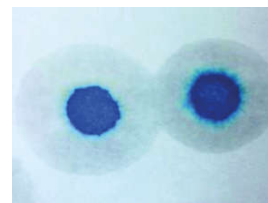
Step 4-) 5 ml of methylene blue solution is added to the obtained aggregate-water mixture. It is mixed for 1 minute at 400 rpm.

Step 5-) The glass baguette is dipped into the resulting mixture and a drop is dropped onto the filter paper.

Step 6-) 5 ml of methylene blue solution is added to the suspension containing the same aggregate-water-methylene blue solution and mixed for 1 minute at 400 rpm.

Step 7-) Again, the glass baguette is dipped into the resulting mixture and a drop is dropped onto the filter paper.

Step 8-) Steps 4 and 5 are repeated until the halo image with dark blue center is observed on the filter paper as in Figure 1.



Step 9-) When the experiment is finished, the amount of methylene blue (MB) is calculated with the following formula.

$$MB = V1/M1 \times 10$$

V1: Amount of methylene blue used (ml)

M1: Aggregate amount (g)

TECHNICAL SPECIFICATIONS

Dimensions	270x590x600 mm
Weight (approx)	16 kg