



Sulphate PP

M360

5 - 100 mg/L SO<sub>4</sub><sup>2-</sup>SO<sub>4</sub>

Bariumsulphate Turbidity

## Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	$\lambda$	Measuring Range
MD 100, MD 110, MD 600, MD 610, MD 640, MultiDirect, PM 620, PM 630, SpectroDirect, XD 7000, XD 7500	ø 24 mm	530 nm	5 - 100 mg/L SO <sub>4</sub> <sup>2-</sup>

## Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Sulfa 4 F10	Powder / 100 pc.	532160

## Application List

- Waste Water Treatment
- Cooling Water
- Drinking Water Treatment
- Raw Water Treatment

## Notes

1. Sulphate causes a finely distributed turbidity.





## Determination of Sulphate with Vario Powder Pack

Select the method on the device.

For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



Fill 24 mm vial with **10 mL sample**.



Close vial(s).



Place **sample vial** in the sample chamber. Pay attention to the positioning.

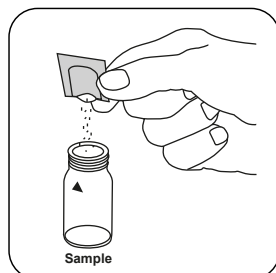


Press the **ZERO** button.

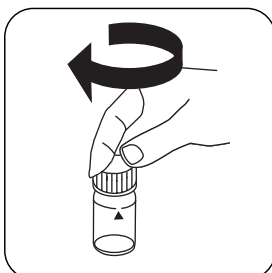


Remove the vial from the sample chamber.

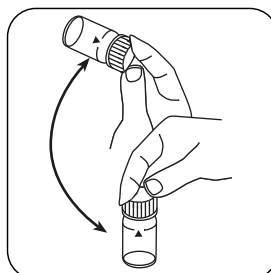
For devices that require **no ZERO measurement**, start here.



Add **Vario Sulpha 4/ F10 powder pack**.



Close vial(s).



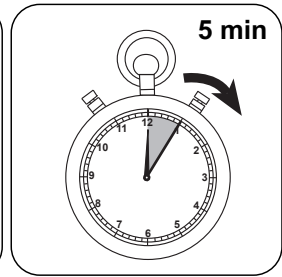
Invert several times to mix the contents.



Place **sample vial** in the sample chamber. Pay attention to the positioning.



Press the **TEST** (XD: **START**) button.



Wait for **5 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically.

The result in mg/L Sulphate appears on the display.



## Chemical Method

Bariumsulphate Turbidity

## Appendix

### Calibration function for 3rd-party photometers

$$\text{Conc.} = a + b \cdot \text{Abs} + c \cdot \text{Abs}^2 + d \cdot \text{Abs}^3 + e \cdot \text{Abs}^4 + f \cdot \text{Abs}^5$$

	∅ 24 mm	□ 10 mm
a	$2.42421 \cdot 10^0$	$2.42421 \cdot 10^0$
b	$1.07243 \cdot 10^{+2}$	$2.30572 \cdot 10^{+2}$
c	$-1.11466 \cdot 10^{+2}$	$-5.15249 \cdot 10^{+2}$
d	$7.93311 \cdot 10^{+1}$	$7.88423 \cdot 10^{+2}$
e	$-1.88194 \cdot 10^{+1}$	$-4.02123 \cdot 10^{+2}$
f		

#### According to

Standard Method 4500-SO42- E  
US EPA 375.4

#### Derived from

DIN ISO 15923-1 D49