

**SAC 525 nm****346****0.5 - 50 m⁻¹****Direct Reading EN ISO 7887:1994**

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	λ	Measuring Range
SpectroDirect, XD 7000, XD 7500	□ 50 mm	525 nm	0.5 - 50 m ⁻¹

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
no reagent required		

Application List

- Waste Water Treatment

Preperation

1. The deionised water for zero calibration should be passed through a membrane filter with a pore width of 0.45 μm .

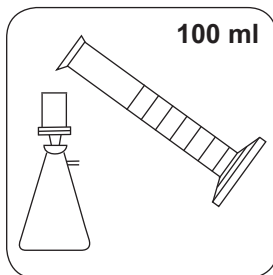
Notes

1. Because the colouration is dependent on pH value and temperature, these should be determined together with the optical measurement and specified along with the result.
2. The spectral absorption coefficient is a variable used to describe the true colouration of a water sample. The "true colouration" of a water sample is the colouration caused solely by dissolved substances in the sample. This is why the water sample has to be filtered prior to measurement. Measurement at a wavelength of 436 nm is obligatory and is adequate for natural waters and the outflow of municipal sewage plants. As industrial waste waters often have no pronounced extinction maxima, additional measurements are required at the wavelengths 525 nm and 620 nm. In case of doubt, you should perform a wavelength scan from 330 to 780 nm using the spectrum function (Mode 53).

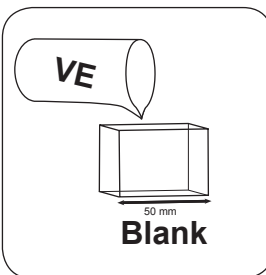
Implementation of the provision Spectral absorption coefficient at 525 nm

Select the method on the device

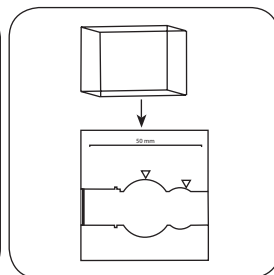
For this method, no ZERO measurements are to be carried out with the following devices: XD 7000, XD 7500



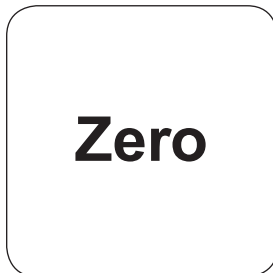
Filter approx. 100 ml sample with a pre-rinsed filter (pore size 0.45 μm).



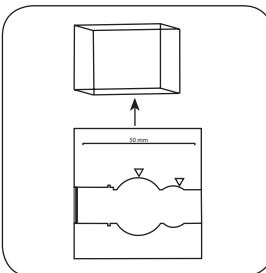
Fill 50 mm vial with deionised water.



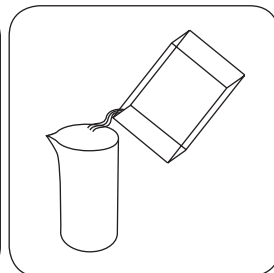
Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **ZERO** button.

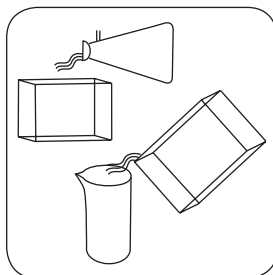


Remove **vial** from the sample chamber.

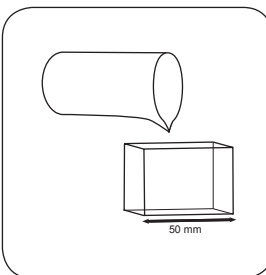


Empty vial.

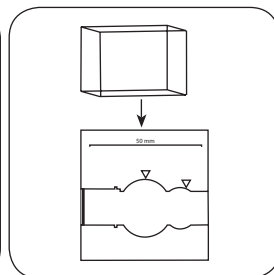
For devices that require **no ZERO measurement**, start here.



Rinse out vial with prepared sample.



Fill 50 mm vial with **sample**.



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

Test

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

The result in (m^{-1}) appears on the display.

Chemical Method

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Appendix

According to

EN ISO 7887:1994, main section 3

^{a)} determination of free, combined and total | ^{b)} Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | ^{c)} MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | ^{d)} Spectroquant® is a Merck KGaA Trademark | ^{e)} alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | ^{f)} additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | ^{g)} Reagent recovers most insoluble iron oxides without digestion | ^{h)} additionally required for samples with hardness values above 300 mg/l CaCO₃ | ⁱ⁾ high range by dilution | ^{j)} including stirring rod, 10 cm