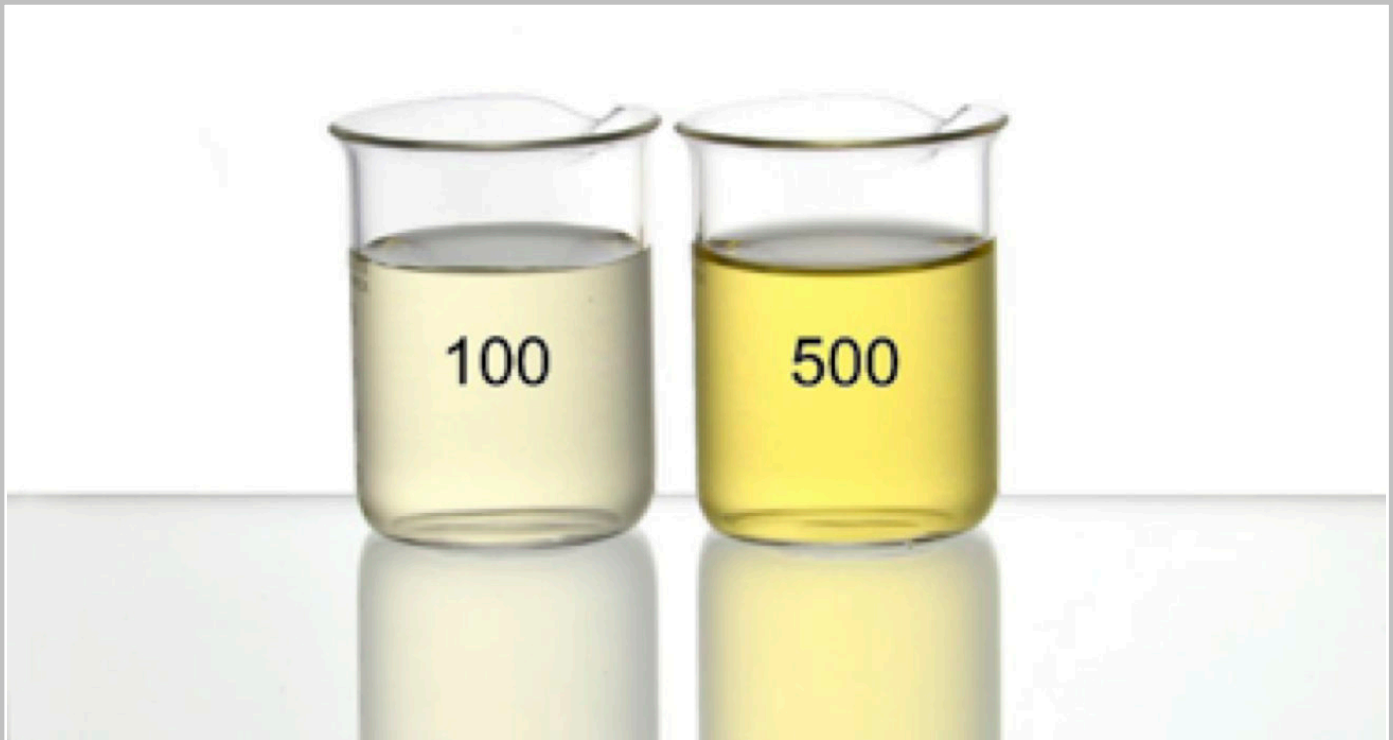


Pt-Co APHA Hazen ASTM D 1209



GECKO 

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Key Facts: Pt-Co APHA Hazen (ASTM D 1209)

- ▶ Platinum-Cobalt (Pt-Co) color scale ASTM D 1209
- ▶ Hazen color scale ASTM D 1209
- ▶ APHA color scale ASTM D 1209
- ▶ Color measurements as per BS 5339:76 (1993)
- ▶ Color measurements as per DIN 53409 and ISO 6271-1:2004(E)
- ▶ Direct real time measurement of color
- ▶ High resolution measurement
- ▶ Automatic cleaning options



We reserve the right to make changes without previous notice.



Pt-Co APHA Hazen (ASTM D 1209) - Application Note

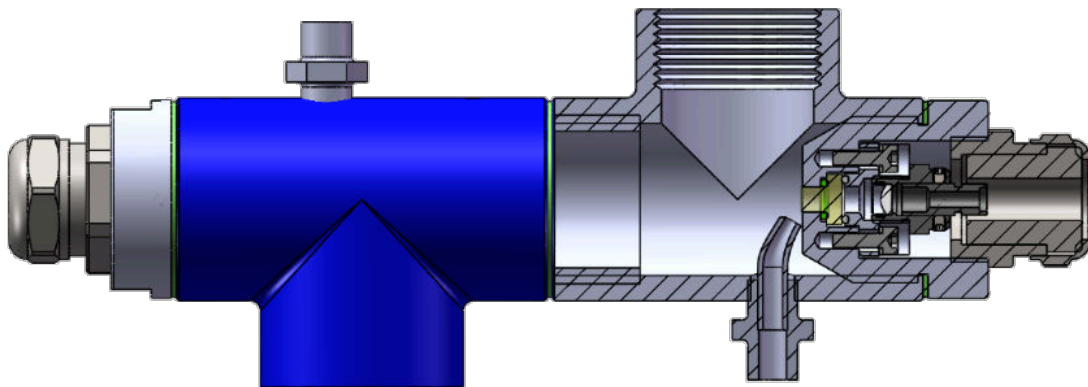
The Platinum-Cobalt (Pt-Co) color scale measures the "yellowness" of a liquid and is well suited for quality control and contamination detection.

Pt-Co APHA Hazen (ASTM D 1209) - Application

The Kemtrak DCP007 is an industrial UV VIS NIR photometer designed to accurately measure the color of liquids. Real time measurement results are displayed in units of PCU (Pt/Co), Hazen or APHA. The Kemtrak DCP007 uses a high performance long life LED light source with robust industrial fiber optics to provide a reliable high precision measurement. A proprietary dual wavelength four channel measurement technology allows accurate measurement of both highly colored and trace color levels. The primary "absorbing" UV-VIS wavelength accurately measures water color, while the second reference NIR wavelength, which is not influenced by the water color, compensates for turbidity and/or fouling of the optical windows. Since optic fibers are used to transfer light to the measurement point and back, the measurement cell contains no electronics, moving parts or sources of heat. Standard measurement cells are manufactured in robust sanitary grade stainless steel and use sapphire windows to provide a long and maintenance free operation. Calibration is simplified using an automated QuickCal one point calibration. Measurement drift from LED light or filter aging is negligible and instrument recalibration is not required.

Pt-Co, APHA, Hazen (ASTM D 1209) - Installation

The measurement wavelength is typically between 380 - 500nm depending upon the sample color. Highly colored samples (> 500 PCU) require a short optical path-length (OPL) while slightly colored samples (<100 PCU) require a long OPL, typically 200mm. A reference wavelength of 650nm or 850nm is used to compensate for turbidity and window fouling. For optimum selection of wavelength and OPL, please contact [Gecko Instruments GmbH](http://www.gecko-instruments.de). DCP007 VIS photometer with standard VIS fibers optics are suitable. The most common measurement cell for these applications is a long pass stainless steel G 1" (BSP) pipe thread, as shown below with optional cleaning nozzles. The cleaning sequence can be fully automated using the inbuilt DCP007 controller software.



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