



Application report light

Colour [ASTM] of Diesel/Gasoline/Gasoil

SIGRIST product

- ColorPlus Ex in-line

Industry

- Petrochemical industry/refineries

Typical application

- The colour of diesel/gasoline/gasoil is measured to monitor quality.
- Measurement at 520 nm (absorption)
- Measuring range 0–5 ASTM D1500
- Measuring cell Varivent®, max. layer thickness 37 mm at 5 ASTM

Use

- Diesel is used as fuel.
- Gasoline is used as propellant, solvent and as a preliminary product in the petrochemical industry.
- Gasoil is used to produce light heating oil and diesel fuel.
- Heavy oil, mixed with diesel oil, is used as fuel for large diesel engines (e.g. marine fuel), as fuel for steam engines, in power plants for power generation and in the generation of process steam.

Additional information

Diesel fuel is mainly composed of alkanes, cycloalkanes and aromatic hydrocarbons. They consist of about 10 to 22 carbon atoms per molecule and their boiling range is between 150 °C and 390 °C. Its ignition temperature is at about 220 °C. Gasoline is a colourless liquid with a phenol-like odour. It consists of more than 100 different, predominantly light hydrocarbons. Its ignition temperature is between 200 °C and 300 °C.

Gasoil is a preliminary product consisting of middle distillates having a high proportion of alkanes and a rather low proportion of aromatics. Its boiling temperature is between 190 and 400 °C, its cetane number is approximately 40 and 60.

ASTM D1500 is a 16 step colour scale for evaluating mineral oils. With this colour scale, the quality of the oil product can be determined and it can be monitored that no contamination or deterioration of the quality has occurred.



ColorPlus Ex in-line on Varivent®



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