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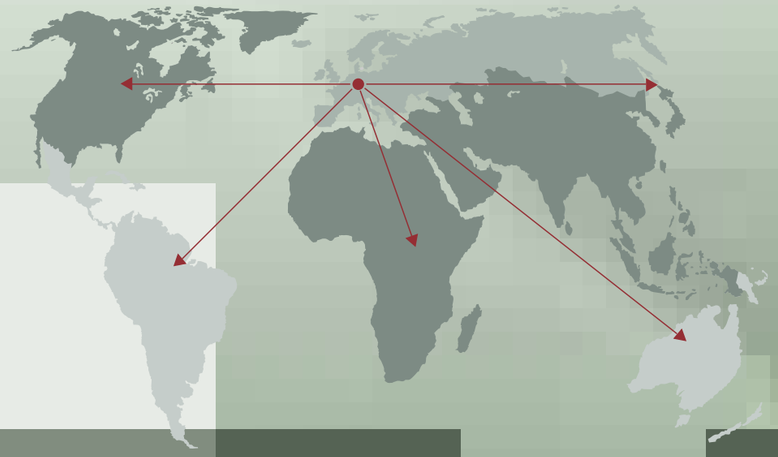


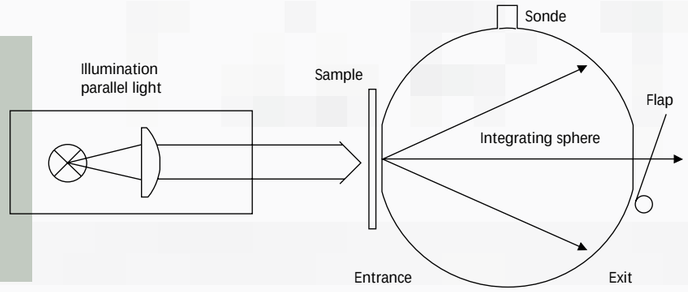
The Solution for the Polymer Industry

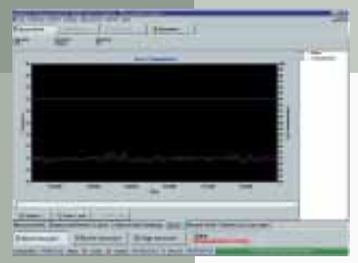
The Original by OCS

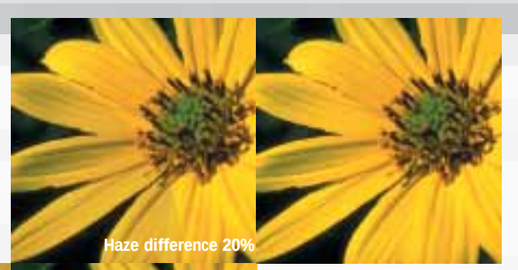
Online Hazemeter
Gamma12

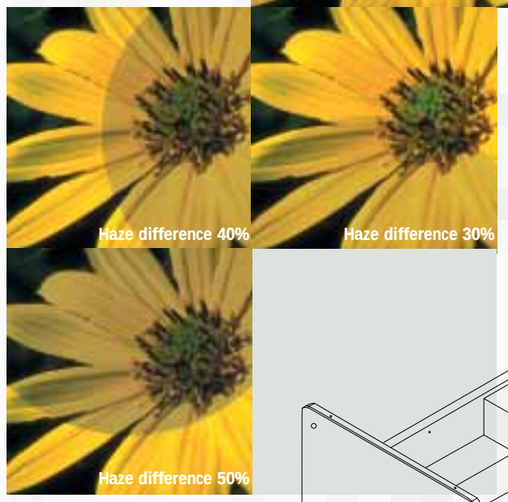
Online Hazemeter Gamma12

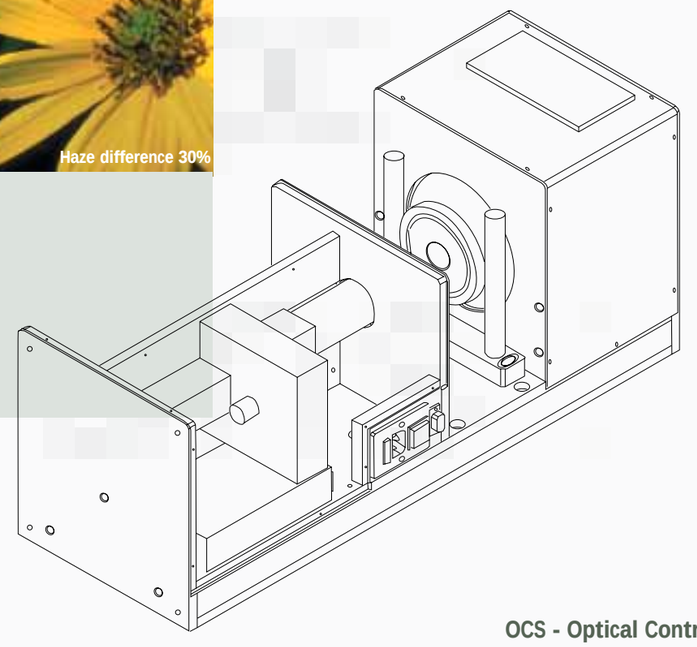
Measurement according to ASTM 1003 standard











Hazemeter Gamma12

The functional principle of Gamma12 complies with the standard ASTM 1003. The measurement sample is passed across the opening in an integrating sphere so that parallel light can pass through the sample into the sphere. The intensity of the dispersed light can be measured using a high-precision sensor by means of the dispersion of the transmitted light beam. Light beams with dispersion angles exceeding a standardised value cannot leave the sphere through the exit and are reflected by the sphere surface. The intensity of the scattered light is measured after multiple reflections within the integrating sphere.

The intensity of the total light transmitted can be determined by measuring with the sphere exit closed. The haze value is calculated from the ratio of the scattered light and the total transmitted light.
In addition to the haze, the transmittance of the sample is measured. This is derived from the ratio of the total transmitted light and the intensity of the illumination. The measurements are shown online on a display as percentages and therefore provide an objective indication of quality instead of a visual subjective assessment.
The measurement results can be documented and analysed with high-performance software tools owing to the link via the interface RS232.

Performance features

- **Online measurement**
  The measurements are made while the sample is moving. No stop of production required.
- **Easy touch**
  Simple menu-guided desktop with coloured touch display
- **Online measurement presentation**
  The measurement results are continuously updated on the display
- **Multi-point calibration**
  Simple multi-point calibration
- **Compensation measurement**
  Continuous reference beam measurement to compensate for changes in the intensity of the illumination
- **Fault diagnosis**
  System monitoring by means of a continuous self-test of the hardware components
- **Light technology**
  Choppered light source, therefore no effect from temperature and ambient light
- **Signal processing**
  Use of modern LOCK-IN amplifier technology
- **Embedded technology**
  Integrated embedded PC for unit control
- **Remote control**
  Remote control via serial RS-232 interface
- **Open database format**
  The measurement data can be converted into all common data formats (Access, Excel, ...) because of the link to the Film Analyser Software
- **Quality assurance**
  The RS232 interface permits connection to a printer, e.g. for printing out statistics, and is therefore the ideal preparation for ISO 9000

Technical data

- **Main Power**
  115VAC - 230VAC / 50Hz - 60Hz
- **Power consumption** 60VA
- **Operating temperature** 10 - 40°C
- **Weight** approx. 25 kg
- **Housing** Aluminium / stainless steel
- **Dimensions** 630 x 220 x 275 mm (H x W x D)
- **Standard** ASTM D 1003 - 95
- **Spectral adaptation**
  CIE standard spectral value function V (λ) under standard light type A
- **Measurement range haze** 0.0 % to 100.0 %
- **Measurement range transparency**
  0.0 % to 100.0 %
- **Measurement area** Ø 22mm
- **Measurement accuracy** ± 0.2%
- **Interface** RS-232 (electrically insulated) ASCII protocol
- **Remote control** via RS-232

OCS - Optical Control Systems GmbH

As one of the world's leading companies for optical quality control systems, OCS offers customised, all-round solutions for the fields of industrial image processing, optical measuring technology and automation. Our systems guarantee optimum perfection. Even the smallest defects in polymer products are recorded, localised and accurately analysed using high-precision cameras in conjunction with high-performance image processing. The application of OCS systems ranges from the laboratory to their complete integration into the production process.

Leading suppliers in the petrochemical and polymer industries benefit from the use of OCS products. Europe, USA, Canada, South America, Asia and Australia: Our system solutions are used successfully all over the world. With a highly skilled and innovative team of development and production engineers, OCS offers top-class technology and know-how worldwide - always up to date thanks to systematic research and development work. Our services include the production, supply and installation of our systems as well as the training of the machine operators.