

haze-gard i Pro

Haze meter for crystal clear glass with toughest limits

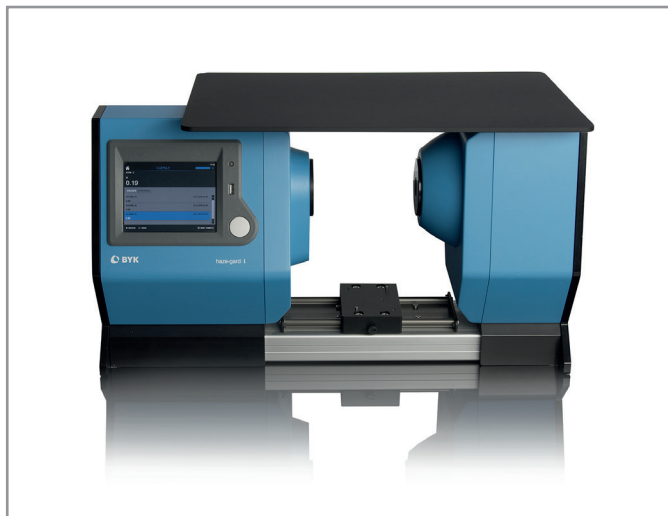
Transparent products can have a milky or fuzzy appearance dependent on their light scattering behavior. The haze-gard i quantifies the visual perception with objective measurement criteria:

- Total transmittance
- Transmission haze
- Clarity

haze-gard i controls complete transparency by taking only one reading.

Improved performance for very low Haze levels < 0.3%

Measurement stability guaranteed with automatic measurement mode and additional calibration/verification at Haze < 0.3 %

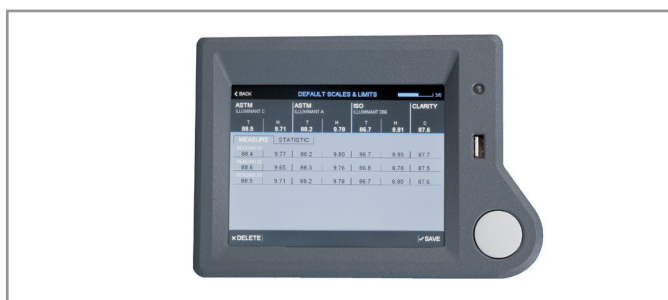


Global communication

Haze and transmittance control according to international standard methods with one unit:

- ASTM D1003 – illuminants C and A - Non-compensated method
- ISO 13468 – illuminant D65 - Compensated method

haze-gard i displays all results simultaneously – well prepared for any customer specification.



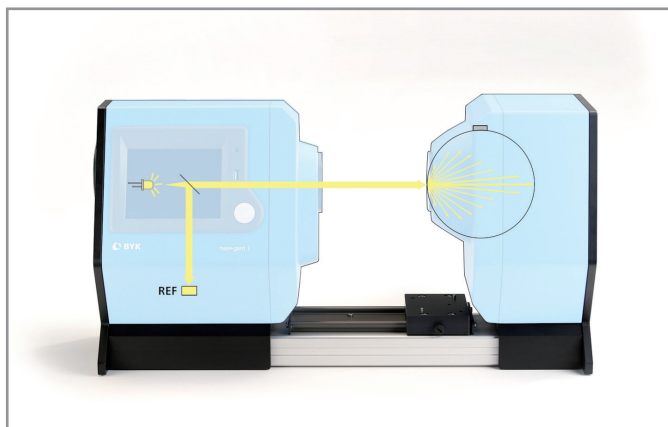
Reliable and Precise

With state-of-the-art optics and LED technology the haze-gard i delivers an unprecedented performance:

- Reference beam, self-diagnosis and enclosed optics
- LED light source assures long-term stable results for many years: 10 year warranty on the lamp life!
- Automatic, long-term calibration - operator friendly and safe
- Superior repeatability and inter-instrument agreement are guaranteed.

Improved performance for very low Haze levels < 0.3%

Measurement stability guaranteed with automatic measurement mode and additional calibration / verification at Haze < 0.3 %



Smart and Fast

The new touch display is designed to be intuitive and easy to use for any task:

- Large touch display in color
- Symbols to select a menu function
- Dedicated measurement button
- Foot switch allows hands-free operation



Open and Flexible

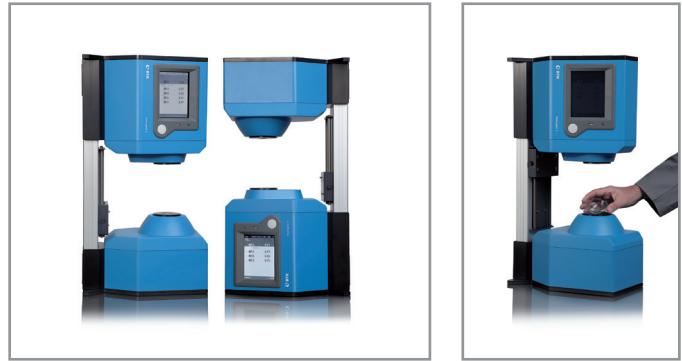
The open measurement compartment let's you work freely to analyze any sample size:

- Open design for small and large specimens
- Fast change and positioning of samples
- No influence of ambient light
- Versatile sample holder for films and sheets
- Sample holders for taber abrasion test and cuvettes for liquids optional
- Customized sample holders can be easily attached



Horizontal or vertical set-up

Sample handling in any position is convenient and allows you highest flexibility.



Onboard analysis

Measurement data can be analyzed and saved in projects directly in the haze-gard i for efficient work management:

- Large instrument memory (5000 readings)
- Complete statistics on-screen with averaging, min/max, standard deviation
- Limit input for different product specifications with colorful Pass/Fail analysis



Professional connection

Data transfer can be performed in all sorts of ways to support you in routine lab work:

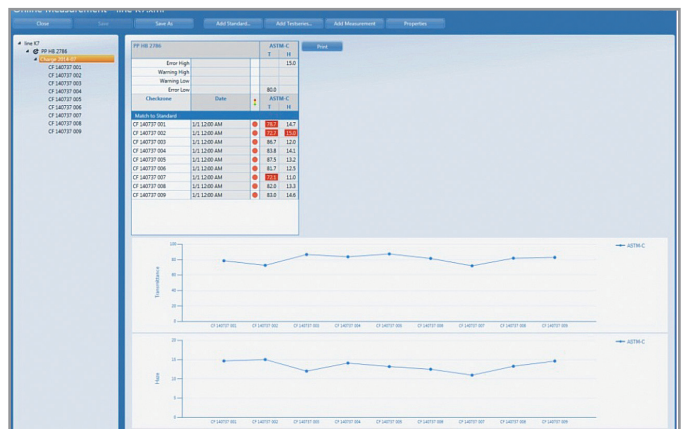
- Direct data transfer via USB-port to PC
- Direct LAN connection to your network for further analysis in Laboratory Information Management Systems (LIMS)
- Save data on a USB-Stick



smart-lab haze – data analysis software

Whatever the task, smart-lab haze will do it for you. From simple data tables of single test series to trend reports over time – anything is possible.

- Define your product specifications in standard management by setting up product groups with Pass/Fail limits
- Measure your products online and get instant QC reports displayed: Data table with statistic and line graph including Pass/Fail coloring
- Manage your lab work in projects to show production process stability using trend reports
- Transfer product specs and projects to haze-gard i and vice versa for daily work management



Standards

ASTM D1003
ASTM D1044
ISO 13468
ISO 14782



Catalog Number	4797
Short Description	haze-gard i Pro
Illuminants	CIE-C, CIE-A (ASTM D1003) CIE-D65 (ISO 13468, ISO 14782)
Spectral Response	CIE luminosity function y
Geometry	0°/diffus
Measurement Area	18 mm diameter 0.7 in diameter
Sample Port	25.4 mm diameter 1.0 in diameter
Measurement Range	0 - 100 %
Repeatability (Std. Dev.)	± 0.1 units Haze < 0.3 %: 10% of measured value or > 0.01 units
Reproducibility (Std.Dev.)	± 0.4 units Haze < 0.3 %: 10% of measured value or > 0.01 units
Memory	5000 readings
Interface	LAN, USB 2.0, additional front USB-port for memory stick
Languages	DE, EN, ES, FR, IT, JA, RU, ZH
Power supply	115/230 V self adapting
Weight	18 kg 40 lb
Operating temperature	10 - 40 °C 50 - 104 °F
Storing temperature	0 - 50 °C 32 - 122 °F
Dimensions: L x W x H	62 x 22 x 33 cm 24 x 8 x 13 in

Delivery Content

Guide carriage for sample holders, Clarity calibration standard (4776), Foot switch, Black, magnetic cover to keep measurement port in the shade, Power cord and USB-cable, smart-lab Haze software with 2 licenses for download (4865), Certificate, Manual, 1/2 day training

System Requirements

Operating system: Windows® 10 1607 or later
Hardware: i5 2.5 GHz; i9 recommended, or equivalent (x86 & x64 architecture only)
Memory: 16 GB RAM, 32 GB recommended
Free hard-disk capacity: 4 GB during installation
Monitor resolution: 1920 x 1080 pixel; 4K recommended
Interface: free USB-port

Catalog Number	Short Description	Delivery Content
4788	Sample Holder, for 4775	
4784	Thin Film Holder, for 4775	
4785	Taber Abrasion Holder, for 4775	
4786	Cuvette Table, for 4775	
6180	Cuvette for Liquids, 2.5 mm	
6182	Cuvette for Liquids, 5 mm	
6183	Cuvette for Liquids, 10 mm	
6189	Cuvette for Liquids, 20 mm	
4748	Haze aperture 4mm	
4774	Haze Aperture 15mm	
4865	smart-lab Haze	Software with 2 licenses for download
4776	Clarity Calibration Standard, for 4775	
4777	Clarity Reference Standard, for 4775	
4778	Transmittance Standard 10, for 4775	
4779	Transmittance Standard 30, for 4775	
4780	Transmittance Standard 50, for 4775	
4781	Transmittance Standard 70, for 4775	
4782	Transmittance Standard 90, for 4775	
4783	Transmittance Standard Set, for 4775	4 Standards (4779-4782) Certificate Hard box
4798	Haze Standard 0.1, for 4797	
4790	Haze Standard 1, for 4775	
4791	Haze Standard 5, for 4775	
4792	Haze Standard 10, for 4775	
4793	Haze Standard 20, for 4775	
4794	Haze Standard 30, for 4775	
4795	Haze Standard Set, for 4775	5 Standards (4790-4794) Certificate Hard box