

Measurements of thin films on curved samples that are large, difficult to place on sample holder or to move (e.g. assemblies) require special probes. MP-FLVis manual probe has a soft rubber padding and can be placed directly on the product. It is connected to a measurement unit with fiberoptics cable.

BACKSIDE REFLECTION

MP-FLVis probe is targeted for applications where film is deposited on relatively thin transparent substrate and there is a need to eliminate the backside reflection (e.g there may be coating on the backside).

Examples of such applications are hardcoat on eyeglass lenses, hardcoat or anti-fog coat on head/rear automotive lights (covers and lenses).

EASE OF **U**SE

One-click measurement and analysis. Automatic adjustment of integration time. Powerful software tools that correct and optimize measured data.

MProbe VisHC

Thin Film Measurement System *It is easy to be an expert with MProbe*

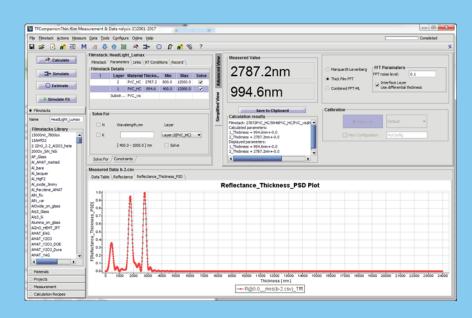


MProbeHC system

| Precision | 0.01nm or 0.01% |
|-----------------|-------------------------------------|
| Accuracy | 0.2% or 1 nm |
| Stability | 0.02nm or 0.03% |
| Spot Size | 0.2mm or 0.4mm (depending on fiber) |
| Sample Size | > 25mm |
| Thickness range | 0.05 -70 μm |

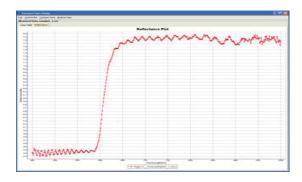
MProbe Advantage

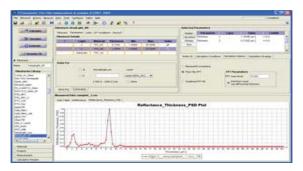
- Standalone software included
- Remote diagnostics
- Dispay residual color
- Measurement history for recall and display (plots and statistics)
- Compare and evaluate multiple reflectance spectra
- Microprocessor controlled light source with 10000+ hours lifetime
- Free software update for 12 months



Hardcoat measurement. HC and IPL (interpenetration layer) thicknesses are determined

Specification





Measurement of HC on rear-light (red) covers

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Measurement of anti-fog coating on lens

| Spectral range (nm) | 400-1000 |
|-----------------------|---------------------------------------------------------------------------|
| Spectrometer/detector | F4 spectrometer, 3600 pixels Si CCD, 16 bit ADC, 380-1100 nm range |
| Spectral resolution | <1 nm FWHM |
| Light source | 5 W Tungsten-halogen lamp (Xe filled), CT 2800° Lifetime: 10000 hrs |
| Reflectance probe | Fiberoptics (7 fibers assembly), 400µm fiber core |
| Precision | <0.01 nm or 0.01% |
| Accuracy | <1nm or 0.2% |
| Weight (main unit) | 5 kg |
| Size (main unit) | 8"x 12" x 4" (WxDxH) |
| Power | 100-250VAC, 50/60 Hz 20W |

| Hardware options | | |
|------------------|-------------------------------------------------------------------|--|
| - FO200 | Using 200 μ m fiberoptics probe (for 0.2mm spot size) | |
| - 2oW | Change to 20W (CT 3100°, lifetime 2000hrs) tungsten-halogen lamp. | |
| -AR1 | upgrade spectrometer for higher quality photometric measurement. | |
| -AR2 | upgrade spectrometer for highest quality photometric measurement. | |

| Photometric specification | | | | | | |
|-------------------------------|----------------|------------------|-----------------|--|--|--|
| | HC | HC -AR1 | HC-AR2 | | | |
| Wavelength accuracy | <0.5 nm | <0.5 nm | <0.5nm | | | |
| Wavelength Reproducibility | 0.1nm | <0.1nm | <0.1nm | | | |
| Photometric Accuracy | 0.01A | <0.005A | <0.001A | | | |
| Noise | 0.001A rms | <0.0005A rms | <0.0001A rms | | | |
| Stray Light | 0.05% at 600nm | <0.05% at 600 nm | <0.01% at 600nm | | | |