

ETA-ARC: Fast and precise measuring system for ophthalmic Anti-Reflection and hard coatings

NXT offers a fast, precise and easy-to-use measuring system for ophthalmic Anti-Reflection and hard coatings. The ETA-ARC is an industry-proven system that is used by leading manufacturers in their R&D and production process.

Measurement of AR coating

ETA-ARC measures residual reflectance and color quickly and precisely, directly on the lens. The unique probe suppresses the substrate's rear surface reflection; There is no need to roughen or blacken the lens.

Measurement of hard coating

The software package STC (module dual layer) enables simultaneous thickness measurement of 2 layers. Primer + hard coating as well as UV coating + IPL (Inter Penetration Layer) are measured in less than a second!

Highlights of ETA-ARC

Measurement of coating properties:

- Residual reflectance
- Color and color matching (dE-Lab)
- Layer thickness of hard coating

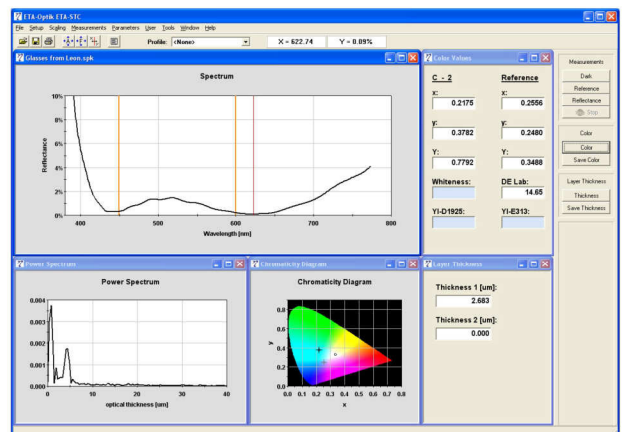
Single and dual layer hard coating thickness:

- Primer + hard coating
- IPL (Inter Penetration Layer) of UV coating

No back surface preparation necessary:

Measuring probe rejects 100% of back surface reflections on $\geq 2\text{mm}$ substrates

Measurement Example



Residual reflectance and color of AR + layer thickness of hard coating

Specifications

MEASUREMENT

| | |
|----------------------------|----------------------------------|
| Thickness range / accuracy | 0.1-20µm / $\pm 0.04\mu\text{m}$ |
| Color Measurement | CIE |

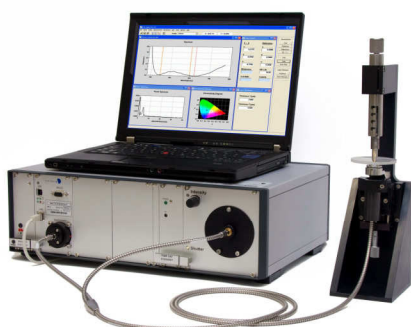
SPECTROMETER SYSTEM

| | |
|------------------------|--------------------|
| Detector | Si line sensor |
| Spectral range | 380-1050nm |
| Optical Resolution | 5.2nm |
| Wavelength accuracy | $\pm 0.5\text{nm}$ |
| Digitalisation | 16-bit |
| Typical measuring time | $\leq 0.2\text{s}$ |
| Light source | Tungsten halogen |
| Color temperature | 3000K |
| Communication | USB / Ethernet |

SOFTWARE

Software package ETA-STC including measuring modules for color evaluation and dual layer thickness

PC or laptop is not included with the standard ETA-ARC system



ETA-ARC measuring system including probe for hands free measurement



This is NXT GmbH

NXT is a world leader in comprehensive quality assurance solutions for specialized industries. We offer high-precision analyzers, proactive customer support and training, and Test-Centers around the world.

For different industries, our ETA™, Helios and Xelas instrument families are perfect tools for protecting quality and production efficiency. With a large installed base of testers worldwide, NXT has achieved recognition as a perfect and reliable partner for optical measurements solutions.

For producers of solar cells, OLEDs, optical medias, flat panel displays, precision optics, automotive glass, consumer packaging and other thin film applications, our solutions provide comprehensive, non-destructive quality assurance that is both time- and cost-efficient.

Our headquarter is located in Heinsberg, Germany, with subsidiaries in Sweden, USA, China and Taiwan, plus a service and support network of agents worldwide. In 2016 NXT GmbH was renamed from the formerly well known AudioDev GmbH, also known as ETA-Optik GmbH before 2007.

