

3D Contact Angle Ayrís®



Surface QC has never been so easy and reliable

Getting rid of any user intervention and result interpretation whatsoever, our Ayrís uses groundbreaking technology for perfectly reliable QC checks of wettability. With just one click and in seconds, the 3D Contact Angle of water is measured and auto-validated with a simple passed/failed message using preset quality limits. The highly advanced 3D drop projection technique of Ayrís provides for automatic self-checking of consistency and plausibility of each result. As a mobile, stand-alone instrument with easy-to-exchange rechargeable batteries and prefilled cartridges, Ayrís is prepared to operate 24/7 on your production site.

Tasks and applications

- Quality assurance of cleaning steps as well as pretreatment and coating processes
- Determination of the wettability of solid materials before coating or bonding
- Testing the effectiveness of hydrophobic coatings
- Mobile measurement on large workpieces and finished products such as automobile parts

Measuring methods and options

- 3D Contact Angle of water within seconds
- Clear result validation using custom-defined quality limits
- Easy definition and selection of sample types

The measurement: conceivably simple and definite

QC inspections for pretreated or cleaned materials that simply always succeed without prior knowledge: with Ayríís, assessments of drop images or pre- and post-processing for difficult surfaces are a thing of the past. The technologically new 3D Contact Angle method provides an accurate and definite measurement value. Taking a measurement is correspondingly simple: Place Ayríís, click, and read off the unmistakable result in seconds.



The dosing outlet inside the measuring head produces a water drop with an accurately adjusted volume.



Hitech in a tight space: 90 LEDs generate reflection patterns for the three-dimensional reconstruction of the drop.

The instrument: created for QC

Set the quality limits for your different materials via the easy-to-use touch display and let Ayríís do the quality assessment with a clear passed/failed message. Nothing else is needed – Ayríís is handy, robust, and completely mobile without any additional hardware or software. The pure water required is supplied in cartridges that can be changed in seconds and are sufficient for up to 4,000 measurements. Inserting the commercially available rechargeable batteries is just as easy – nothing stands in the way of 24/7 use for your quality tests.

Specifications

Camera system

Connection	USB-C
Performance	2 cameras, 50 fps at 1024 × 1024 px each

Illumination

Type	90 high power LEDs + 2 lasers
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Dosing system

Dosing	water single pressure dosing
Resolution	0.1 µL

Contact angle

Resolution	0.1°
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Instrument dimensions

Footprint	58 mm × 51 mm (W × D)
Height	290 mm
Weight (including accessories)	1.36 kg