



# StrainMatic® M4/60

## Quality is measurable

### Fast and easy measurement of the stress distribution in glass tubes

In the production of glass tubes, the tube ends are glazed with a burner flame after cutting in order to prevent sharp edges or breakage of glass. In this process, strong residual stresses can remain in the tube end, which has a negative impact on the subsequent treatment. The StrainMatic® M4/60 tube tester was specially developed to measure the stress distribution in glass tubes. The tomographic measuring principle enables the non-destructive determination and the automatic analysis of the compressive and tensile stress at the inner and outer surfaces of the tube end.



### Your Benefits

Objective results

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Fast and easy operation

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Improvement in quality by on-site measurement

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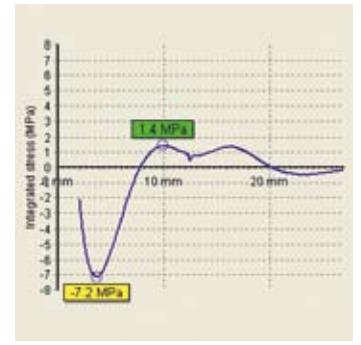
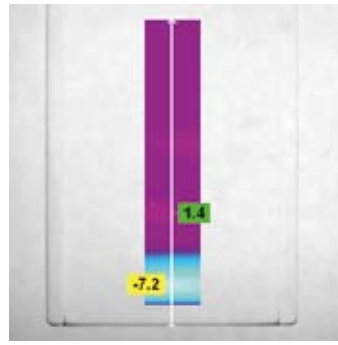
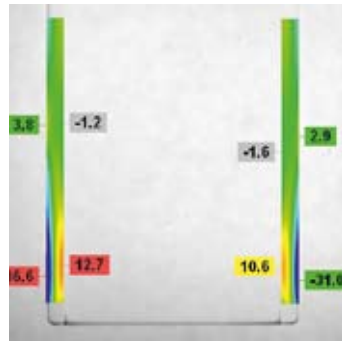
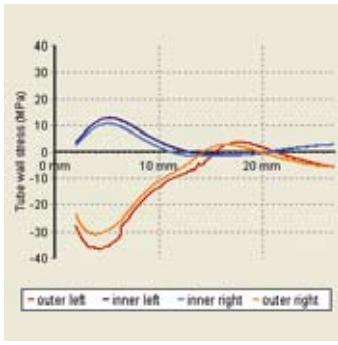
Traceability by automatic filing of all parameters and results

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Cost reduction by optimization of the production process

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# StrainMatic<sup>®</sup> M4/60.50 tube tester

## Technical Data

<b>Operation</b>	integrated PC with touch-screen
<b>Metering chamber</b>	immersion tank, approx. 100 x 50 x 50 mm (H/W/D)
<b>Illumination</b>	collimated LED, approx. 590 nm
<b>Image acquisition</b>	matrix camera (2050 x 2448 pixels) with telecentric lens (60 mm aperture)
<b>Measuring field size</b>	approx. 38 x 46 mm
<b>Spatial resolution</b>	approx. 0.02 mm (pixel distance)
<b>Measuring results</b>	polarization angle (°) optical retardation (nm) normalized retardation (nm/cm, nm/mm) integrated stress (MPa) tube wall stress (MPa)
<b>Measuring range</b>	approx. 0 to 72 nm (standard) approx. 0 to 290 nm (uni- or multi-directional)
<b>Measuring time (typical)</b>	< 45 seconds
<b>Interfaces</b>	Ethernet (1000 MBit/s), USB 2.0, DVI/VGA
<b>Power supply</b>	100-240 V AC, 45-46 Hz, 500 VA
<b>Dimensions</b>	approx. 2300 x 940 x 480 mm (H/W/D)
<b>Weight</b>	approx. 100 kg

Custom adaptations and special versions are possible on request. No responsibility is taken for the correctness of the information. All information is subject to change without prior notice.

Product website: [www.ilis.de/en/strainmatic.html](http://www.ilis.de/en/strainmatic.html)  
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