

UV measuring cell for rheological measurements at ambient temperature

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For measurements at ambient temperature under defined exposure to UV light, a simple measuring cell is available which can be used in combination with a Thermo Scientific™ HAAKE™ MARS™ 40 / 60 Rheometer. It is characterized by a simple design and is suitable as a very cost-effective model for beginners in UV measurements. Measuring cells for UV-assisted thermal curing (1) or UV measurements with simultaneous structure analysis using FTIR spectroscopy (2) extend the accessory portfolio of HAAKE MARS Rheometers.

The UV measuring cell (Figure 1) can be mounted with a bayonet coupling on a temperature module (Peltier, liquid, or electrical temperature controlled). The cell is made of stainless steel with an exchangeable quartz glass plate, which serves as the lower part of a plate/plate measuring geometry.

A commercially available UV light source (3) can be used, the light guide connected to the side of the UV measuring cell (outer diameter up to 15 mm).

Plate/plate measuring geometries with diameters up to 20 mm and from various materials (e.g., titanium or aluminum as a disposable version) are available.

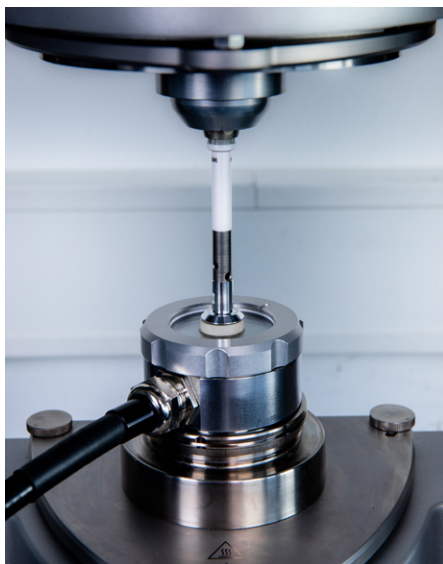
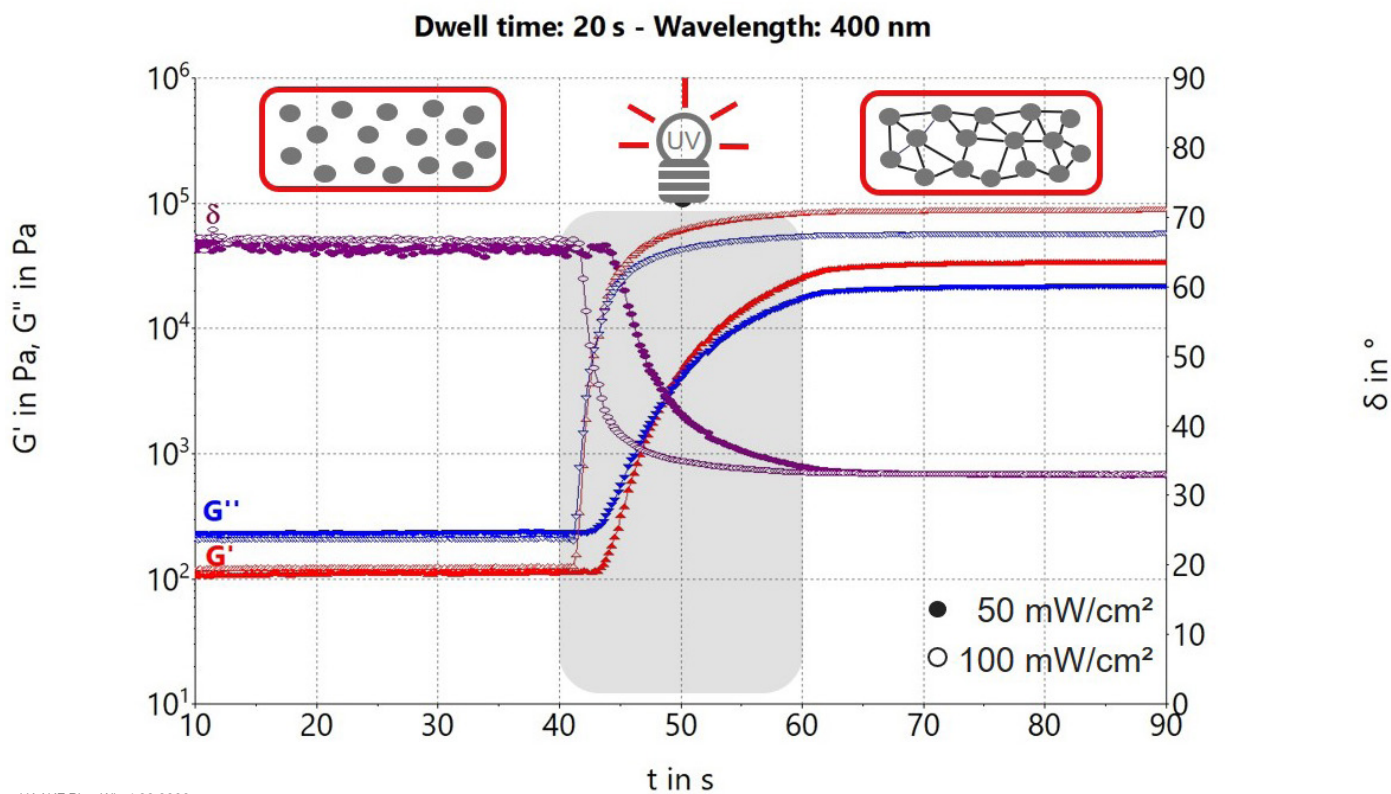


Figure 1: HAAKE MARS Rheometer with mounted UV measuring cell, disposable plate (D P20) in measuring position, with a mounted UV light guide.



HAAKE RheoWin 4.88.0000

Figure 2: Curing curves as a function of different UV light intensities.

Ordering information

Product	Order no.
UV measuring cell for temperature module TM-XX-P (Peltier, electrical, liquid temperature controlled for plate/plate measuring geometries)	222-1931
Rotor P20/Ti with "Connect Assist" and ceramic shaft	222-2090
Adapter P3 for disposable plates D PXX /Al with "Connect Assist" and ceramic shaft	222-2290
Disposable geometry D P20/Al (40 pcs.) made of aluminum	222-2154
Set of glass plates for UV measuring cell (5 pcs.)	222-1844

References

1. F. Meyer, Universal Peltier temperature module for UV-curing applications, Thermo Fisher Scientific Product information P064
2. C. Küchenmeister-Lehrheuer, J. Nijman, Measuring cell for UV assisted thermal curing and simultaneous FTIR spectroscopy, Thermo Fisher Scientific Product information P037
3. Ph. Beutler, Mercury-vapor lamp or LED?, Thermo Fisher Scientific Product information P072

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