

GHP 456 Titan®

| | |
|---------------------------------------|---|
| Technique/Design | <ul style="list-style-type: none"> Absolute technique (no calibration or reference materials required) Symmetrical arrangement Fully automated operation |
| Standards | Based on standards such as ISO 8302, ASTM C177, DIN/EN 12667, DIN/EN 12939, etc. |
| Mean specimen temperature range | <ul style="list-style-type: none"> Low-temperature version: -160°C to 250°C High-temperature version: -160°C to 600°C Both versions require liquid nitrogen for the sub-ambient temperature range |
| Cooling systems | <ul style="list-style-type: none"> Liquid nitrogen (LN₂): -160°C to 250°C Compressed air: 50°C to 300°C Chiller: 20°C to 85°C → No active cooling from 300°C to 600°C |
| Plate dimensions | <ul style="list-style-type: none"> Standard delivery: 300 mm x 300 mm Optional for high-temperature version: 500 mm x 500 mm → Motorized plate hoist for both versions |
| Plate material | <ul style="list-style-type: none"> Low-temperature version: Aluminum alloy High-temperature version: Tungsten alloy |
| Plate temperature range | <ul style="list-style-type: none"> Standard version: -180°C to 270°C High-temperature version: -180°C to 620°C |
| Vacuum-tightness | By design, 5 x 10 ⁻⁴ mbar (0.05Pa) |
| Defined pressure levels | Controlled between 0.1 mbar and 100 mbar |
| Specimen thickness | <ul style="list-style-type: none"> Up to 100 mm Max. difference in thickness for the two specimens to be measured: 2% |
| Atmosphere/pressure level | <ul style="list-style-type: none"> Oxidizing up to 300°C Inert Vacuum Defined pressure levels |
| Thermal conductivity range | 0 to 2 W/(m·K)* |
| Minimum measurable thermal resistance | 0.02 m ² ·K/W* |
| Accuracy | Typically 2%* |
| Reproducibility | < 1% |
| Software specialties | <i>SmartMode</i> , including: <ul style="list-style-type: none"> Method-based, easy operation (e.g., user and predefined methods) Support of controlled, adaptive cooling Report generator Results including combined standard uncertainties according to GUM** |

* Depending on the measurement conditions and specimen properties

** GUM = Guide to the Expression of Uncertainty in Measurement