







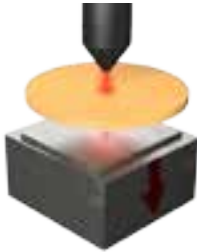





| Methods Comparison                    | <br><br><b>TPS</b> | <br><br><b>HFM</b> | <br><br><b>THW</b> | <br><br><b>TLS</b> | <br><b>LFA</b> | <br><b>GHP</b> | <br><b>GHFM</b> | <br><b>MTPS</b> |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Accuracy</b>                       | ± 5%                                                                                                                                                                                 | ± 3%                                                                                                                                                                                    | ± 5%                                                                                                                                                                                     | ± 5%                                                                                                                                                                                     | ± 5 to 7%                                                                                        | ± 2%                                                                                              | ± 5%                                                                                               | ± 5 to 15%                                                                                        |
| <b>Measured Property</b>              | <i>Thermal Conductivity, Thermal Diffusivity, Specific Heat <sup>1</sup></i>                                                                                                         | <i>Thermal Resistance, Thermal Conductivity <sup>1</sup></i>                                                                                                                            | <i>Thermal Conductivity, Thermal Diffusivity, Specific Heat <sup>1</sup></i>                                                                                                             | <i>Thermal Conductivity, Thermal Resistivity <sup>1</sup></i>                                                                                                                            | <i>Thermal Diffusivity, Specific Heat <sup>1</sup>, Thermal Conductivity <sup>1</sup></i>        | <i>Thermal Resistance, Thermal Conductivity <sup>1</sup></i>                                      | <i>Thermal Resistance, Thermal Conductivity <sup>1</sup></i>                                       | <i>Thermal Effusivity, Thermal Conductivity <sup>1</sup></i>                                      |
| <b>Temperature Range</b>              | -160 to 1000°C                                                                                                                                                                       | -20 to 70°C                                                                                                                                                                             | -50 to 400°C                                                                                                                                                                             | -40 to 100°C                                                                                                                                                                             | -253 to 2800°C                                                                                   | -160 to 600°C                                                                                     | -20 to 300°C                                                                                       | -50 to 200°C                                                                                      |
| <b>Materials</b>                      | <i>Solids, Liquids, Pastes, &amp; Powders</i>                                                                                                                                        | <i>Solids – Insulation</i>                                                                                                                                                              | <i>Liquids and Pastes</i>                                                                                                                                                                | <i>Soils, Rocks, &amp; Plastics</i>                                                                                                                                                      | <i>Solids</i>                                                                                    | <i>Solids – Insulation</i>                                                                        | <i>Solids</i>                                                                                      | <i>Solids, Liquids, &amp; Paste</i>                                                               |
| <b>Calibration</b>                    | <i>None – Absolute Measurement</i>                                                                                                                                                   | <i>Single – Offset</i>                                                                                                                                                                  | <i>Single – Offset</i>                                                                                                                                                                   | <i>Multiple – Offset</i>                                                                                                                                                                 | <i>None – Absolute Measurement</i>                                                               | <i>None – Absolute Measurement</i>                                                                | <i>Single – Offset</i>                                                                             | <i>Multiple – Secondary</i>                                                                       |
| <b>Contact Resistance</b>             | <i>Removed After Measurement</i>                                                                                                                                                     | <i>Removed Through Calibration</i>                                                                                                                                                      | <i>N/A</i>                                                                                                                                                                               | <i>Contact Paste</i>                                                                                                                                                                     | <i>Graphite Spray</i>                                                                            | <i>Contact Paste</i>                                                                              | <i>Contact Paste</i>                                                                               | <i>Water &amp; Contact Paste</i>                                                                  |
| <b>Penetration Depth</b>              | <i>Up to 180 mm</i>                                                                                                                                                                  | <i>Entire Sample</i>                                                                                                                                                                    | <i>&lt; 1 mm</i>                                                                                                                                                                         | <i>&lt; 50 mm</i>                                                                                                                                                                        | <i>Entire Sample</i>                                                                             | <i>Entire Sample</i>                                                                              | <i>Entire Sample</i>                                                                               | <i>0.1 to 3 mm</i>                                                                                |
| <b>Heterogenous Samples</b>           | <i>&lt; 10 mm scale</i>                                                                                                                                                              | <i>&lt; 20 mm scale</i>                                                                                                                                                                 | <i>&lt; 1 mm scale</i>                                                                                                                                                                   | <i>&lt; 10 mm scale</i>                                                                                                                                                                  | <i>&lt; 0.1 mm scale</i>                                                                         | <i>&lt; 20 mm scale</i>                                                                           | <i>&lt; 5 mm scale</i>                                                                             | <i>&lt; 0.05 mm scale</i>                                                                         |
| <b>Theory Scientifically Reviewed</b> | <i>Several Published Papers</i>                                                                                                                                                      | <i>Several Published Papers</i>                                                                                                                                                         | <i>Several Published Papers</i>                                                                                                                                                          | <i>Several Published Papers</i>                                                                                                                                                          | <i>Several Published Papers</i>                                                                  | <i>Several Published Papers</i>                                                                   | <i>Several Published Papers</i>                                                                    | <i>One Published Paper</i>                                                                        |

Specifications sourced from user manuals and available literature.

<sup>1</sup> Italicized property delineates calculated properties.