

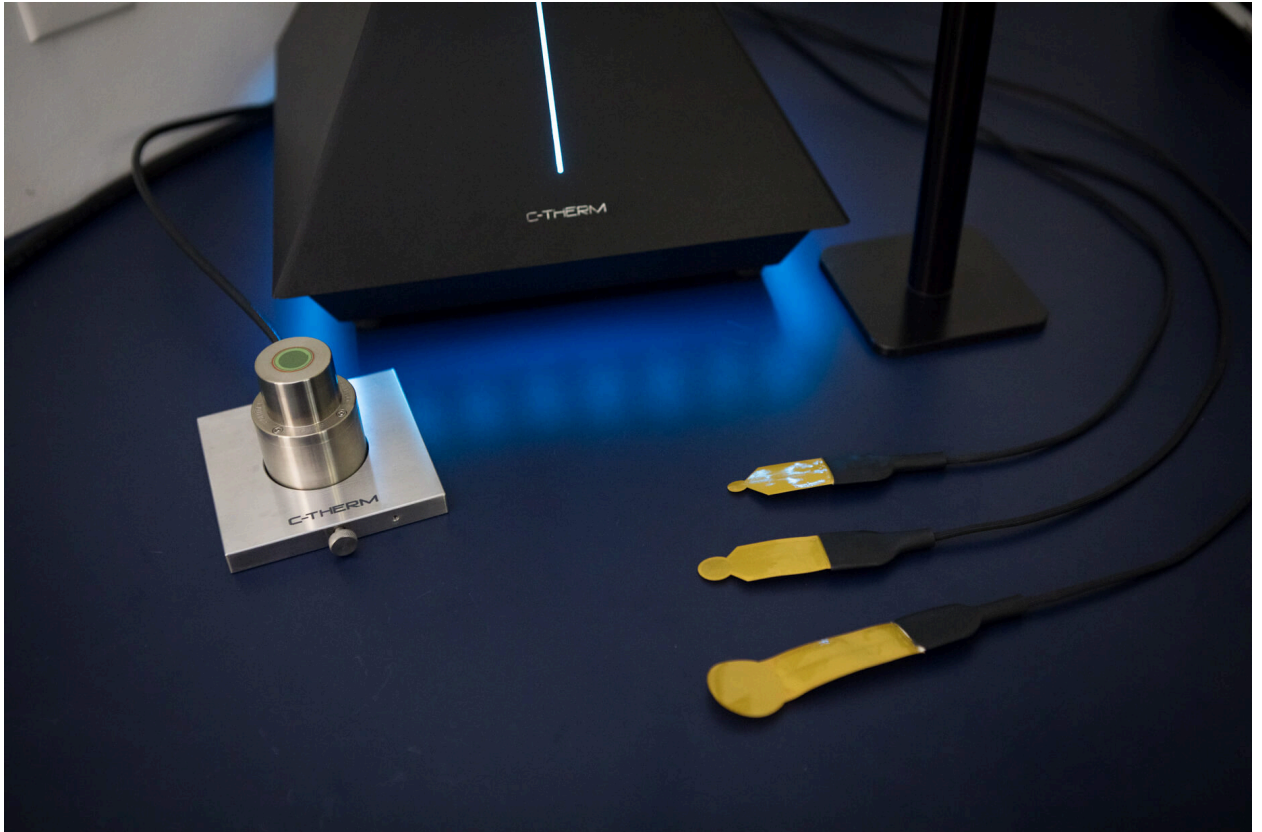
Measuring the Thermal Conductivity of Building Materials

Energy demands continue to rise as a result of increasing population and urbanization. Maintaining a comfortable indoor temperature accounts for a significant portion of energy use worldwide, and innovative new insulative and efficient materials for building structures are at the forefront of energy conservation.

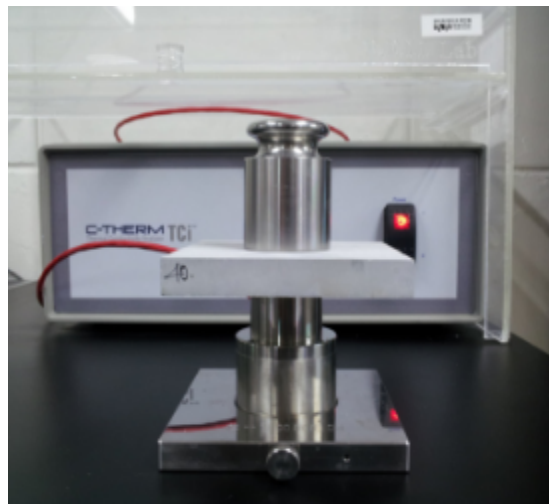
Cement and concrete play major roles in the construction industry and researchers are seeking ways of creating better materials that provide high levels of insulation without sacrificing structural strength. Thermal conductivity is critical in the development of these materials as lower thermal conductivity values correlate to better insulative systems. With Trident, testing thermal conductivity of concrete is easy, as sample sizes do not need to be adjusted and can be tested in a matter of seconds. Both MTPS and TPS transient sensors can be used, depending on the objectives of the testing.



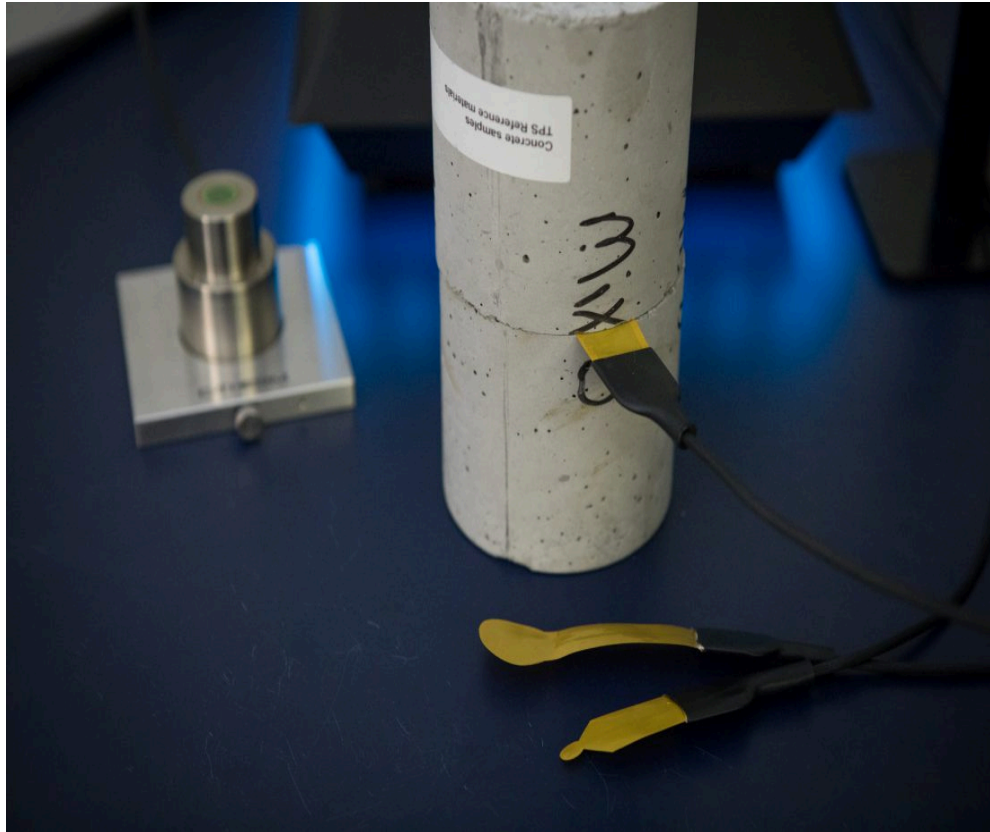
Thermally Insulated Concrete



Trident with MTPS and FLEX TPS sensors



Thermal Conductivity Testing of Aerogel Concrete with MTPS



Thermal Conductivity Testing of Concrete with TPS