

Construction products thermal performance testing

Determine the heat transfer coefficient of products and the energy efficiency of buildings.



The development of an energy efficient building entails having prior knowledge of the thermal performance of each one of the elements involved in its environmental quality, whether active or passive.

To market insulating products (walls, insulation, doors, etc.) and heating equipment (radiators, fireplaces, heaters, etc.), manufacturers must characterize and report their products' thermal performance.

Thermal Performance Testing and Simulations

Applus+ offers a comprehensive thermal evaluation and testing service to characterize construction products. Our service includes:

- Identifying materials, uses and applicable regulations.
- Simulations
- Test plan design and execution
- Test report issuing and improvement plans

Our laboratories test under European and international regulations and perform the following determinations:

- Thermal transmittance simulations
- Thermal conductivity calculation
- Moisture penetration

- Thermal power
- Performance
- Combustion and CO and CO2 emissions
- Thermal safety

These tests and simulations are applicable to a wide variety of construction products.

Insulating products:

- Insulating materials (mineral fibers, EPS, XPS, PUR, elastomeric foams, etc.)
- Glass
- Windows and doors
- Rolling shutters
- Curtain walls and facade skins
- Sandwich panels
- Brick and masonry walls factory
- Other building elements and components

Heating equipment:

- Radiators
- Heating convectors
- Stoves
- Fireplaces
- Other heating equipment

Our testing capabilities allow us to fully characterize the products using numerous technologies (mechanical, acoustic, and thermal behavior, reaction to fire, physical-chemical characterization of materials, etc.), thus adjusting the time and costs needed to characterize your product.

Benefits

- Optimize energy efficiency and improve the product
- Applus+, one stop shop for your product's full characterization and validation.
- Speed up product time to market