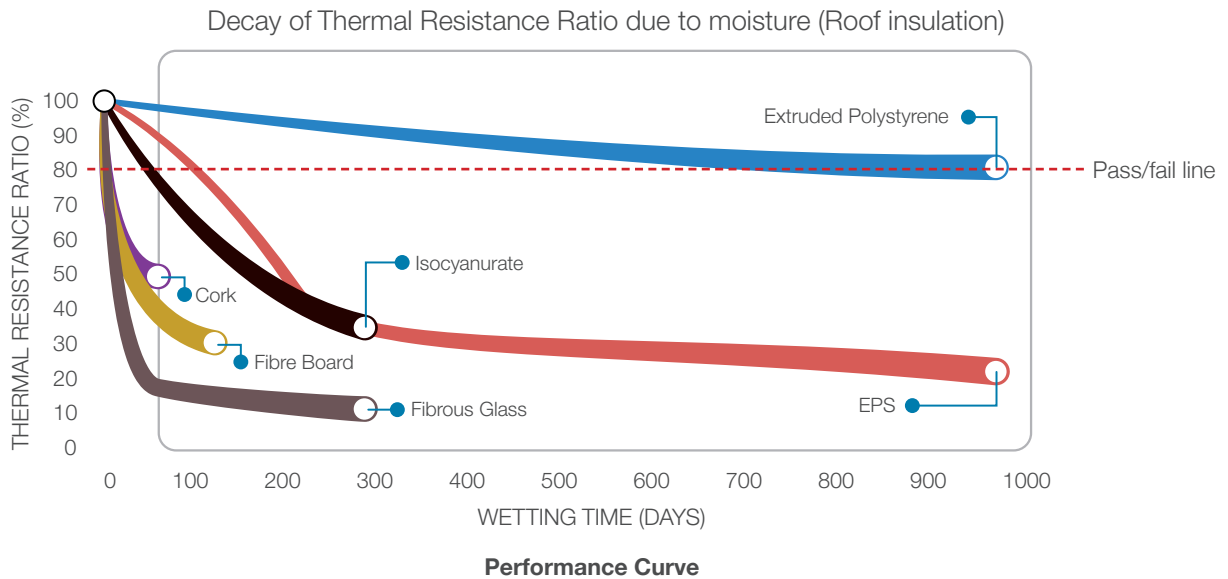




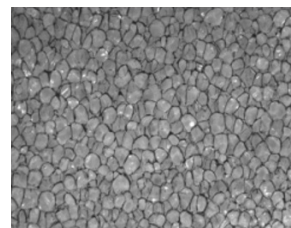
The impact of moisture resistance on thermal insulation



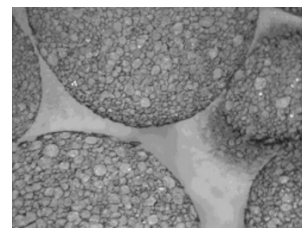
Moisture resistance is a critical consideration when selecting appropriate thermal insulation for sustained long term performance

- The less moisture absorbed, the better.
- Water is the enemy of thermal resistance.
- When water/moisture enters into thermal insulation, thermal resistance reduces.
- 4% of moisture gain can reduce thermal resistance by as much as 70%.
- TRR Thermal Resistance Ratio: is the ratio between the wet thermal resistivity of a product to its dry thermal resistivity, expressed as a percentage.
- The dry thermal resistivity of any thermal insulation material is 100%.
- TRR remains an acceptable criterion of selection of the appropriate thermal insulation type.
- The TRR% decays over time, due to moisture absorption. Only Extruded Polystyrene XPS and Cellular Glass insulation can maintain for years without taking in excessive moisture.
- A TRR ratio of 80% or above is an acceptable criteria in determining Pass/Fail Accept/Reject for any type of thermal insulation.

Full research report available here



XPS - 100% Closed Cell
<1% moisture absorption



EPS

Images magnified 25x