

At BD&PS, we are always looking for ways to contribute to our client's success. A major component of this is the use of new and emerging technologies and testing methods that save client's time and money.

The latest application of new technology at BD&PS is *infrared (IR) thermography*.



In basic terms, IR thermography enables the user to see and measure heat radiation in a given object. All materials emit heat energy in the infrared spectrum.

While invisible to the human eye, thermographic cameras capture the infrared radiation and produce an image based on the relative temperature differences.

Various applications of IR technology include:

**Roofing:** In roofing inspections, IR thermography can be used to find water leaks in a roof. When taken after sunset, an IR thermograph will show the wet areas of insulation, which retain the heat absorbed during the day longer than the dry areas. The opposite approach can be taken with inspection of metal and ballasted roofing systems, where images are taken before sunrise and wet areas warm up more slowly than the dry areas.



## **Building Envelope Evaluation Applications**

**Building Envelope:** Thermography is also helpful in finding defects in EIFS systems, brick veneer and other facades, which, when improperly installed, are prone to water penetration that can cause mold problems.



**Energy Efficiency:** IR can detect missing, wet or damaged insulation and identify poorly insulated pipes in buildings, which can increase energy costs.



**Electrical, mechanical & HVAC:** Overloaded circuits, faulty wiring and loose electrical connections generate heat and pose a serious fire threat. IR can quickly identify these hot spots, as well as other mechanical and HVAC system problems.



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