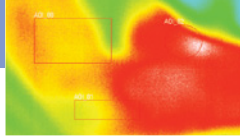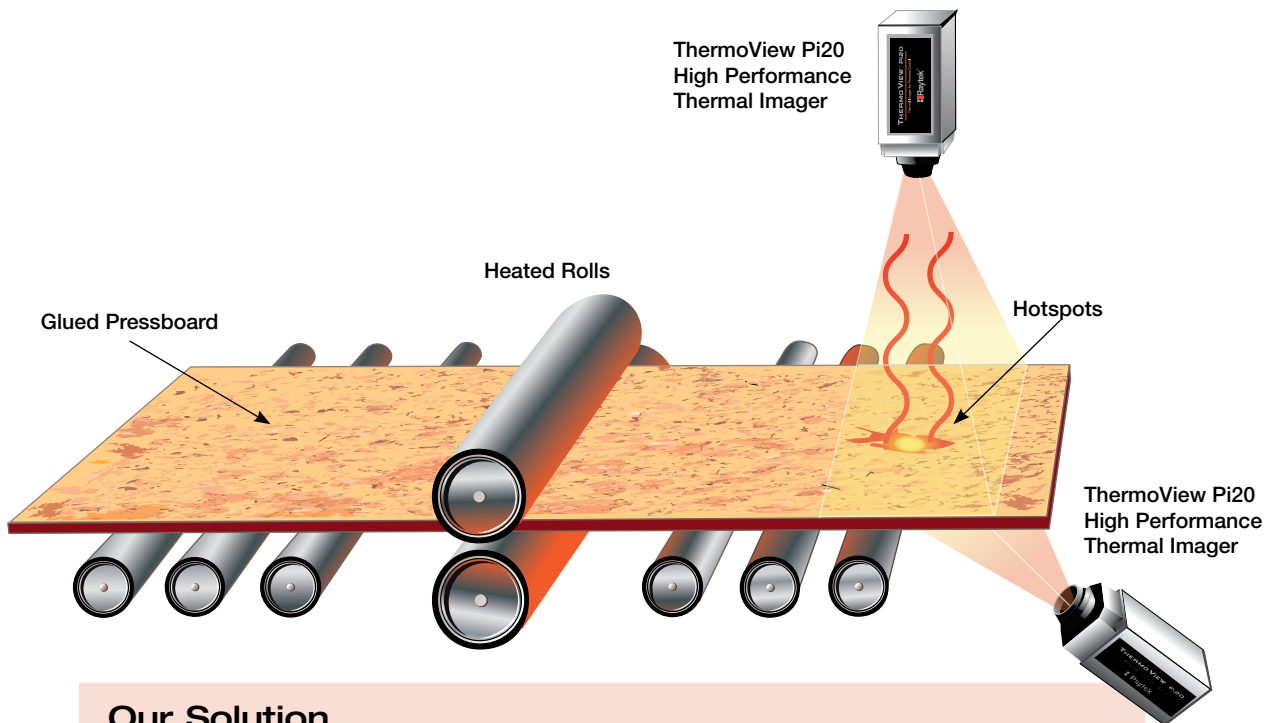# ThermoView™ Pi20

Hotspots in Pressboard Manufacturing

Thermal Imaging for Industrial Applications


ThermoView Pi20
High Performance
Thermal Imager

Heated Rolls

Glued Pressboard

Hotspots

ThermoView Pi20
High Performance
Thermal Imager

Our Solution

- Raytek® ThermoView™ Pi20 High Performance Thermal Imager and DataTemp® DTPi Software
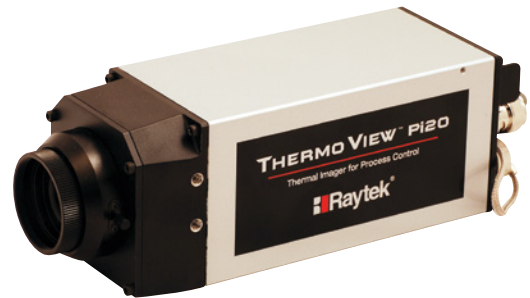
Benefits

- Prevention of warehouse fires caused by hotspots on pressboard sheets stored prior to cooling
- Elimination of waste from pressboard sheets destroyed by fire
- Labor savings with fixed, automated thermal imaging
- Paperless recording and data storage

Raytek®
A Fluke Company
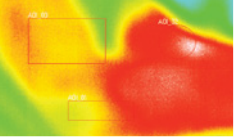
In the building industry, there is a product used that is commonly referred to as pressboard or in some cases, particle board. Sheets of pressboard are typically 1.2 m x 2.4 m (4 x 8 feet) in size and are used in the construction of outside walls, sub floors, and rooftops, as well as underneath real wood veneers for low cost furniture manufacturing. To make this board, the mill chips up logs and all the scraps that are left from making lumber and other wood products. The chips are literally glued together and formed into the 1.2 m x 2.4 m (4 x 8 feet) sheet, which can have different thicknesses, depending on use. To bond the material together, the board is pressed and heated between two heated rolls. The boards are then heated to about 95ºC (200ºF).

One problem that can develop with this process is that some of the chips can protrude up through the surface of the board and get so hot that they begin to burn. The hotspot can be as small as 7.5 mm (.30 inch) in diameter on boards that are moving about 120 m/min (400 ft/Min). Spots can be on both the top and bottom of the board. If this is not detected, the board with the burning spot can be placed on a stack with others and moved into storage. This can lead to a fire in the warehouse and even total destruction of the warehouse – all from one single board with a burning spot that was undetected prior to storage.

To detect these burning chips, two Raytek® ThermoView™ Pi20 thermal imagers need to be installed, one to monitor the top surface and a second camera for monitoring the bottom of the board. An Area of Interest (AOI) is set up to monitor the entire width of the board. When a pixel sees a hotspot of 250ºF (120ºC) or greater, an alarm is triggered so the board can be moved off to the side for cooling. After cooling, the board is returned to the stack for storage.

The Worldwide Leader in Noncontact Temperature Measurement

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CE

QUALITY MANAGEMENT
ISO 9001
CERTIFICATION SERVICES

CAUTION
LASER RADIATION - DO
NOT STARE INTO BEAM
OUTPUT < 1mW
WAVELENGTH 635 nm
CLASS II LASER PRODUCT

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Raytek is an ISO 9001 certified company