

QUALITY CONTROL: MOONROOF SEALANT

THERMAL IMAGING ENSURES QUALITY OF SEALANT IN ONLINE PROCESS

THE CUSTOMER'S CHALLENGE

Sealant volume and placement accuracy are critical to a moonroof's structural integrity and sealing performance. That's why it's important to continuously monitor glue coverage. But a visual inspection can be unreliable and inconsistent. It's common for air bubbles to form in the lines causing "breaks" in the sealant. Existing IR sensors are inconsistent and faulty. Black sealant on black background can be difficult for a visible-light camera to see and measure. Glue beads may fall off after they're applied, and breaks in continuous dispense can occur—which may affect the right amount of adhesive from being placed in the correct location. Standard machine vision has not proven to be a consistent and repeatable verification method.

A SOLUTION

A thermal imager or an IR temperature sensor, such as the FLIR A65, can help manufacturing professionals quickly and easily determine whether the glue bead or adhesive has been applied properly, has gaps, and is within required temperature limits. An IR temperature sensor enables 24/7 continuous monitoring, which can help reduce cycle times for high-volume production lines to maintain consistent process flow. Manufacturing professionals can then verify glue bead presence and coverage from a glue dispense robot.

THE RESULTS

With thermal imaging technology, manufacturing professionals can prevent water leaks by ensuring better adhesion between moonroof glass and vehicles. Achieve maintenance, quality, and scrap goals with thermal imaging by: clearly monitoring the glue dispense for clogged heads and inconsistent or lack of coverage; maintaining even coverage of glue dispense which is vital to product reliability; and preventing excessive scrap issues that can occur without process controls in effect.

For more information about FLIR in manufacturing or to schedule a product demonstration visit:

www.flir.com/manufacturing/quality-assurance

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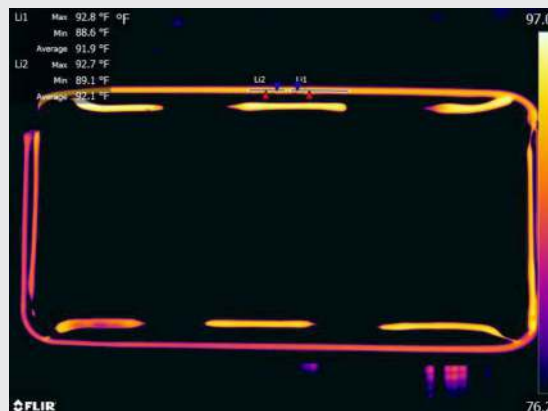
Improve
Reliability



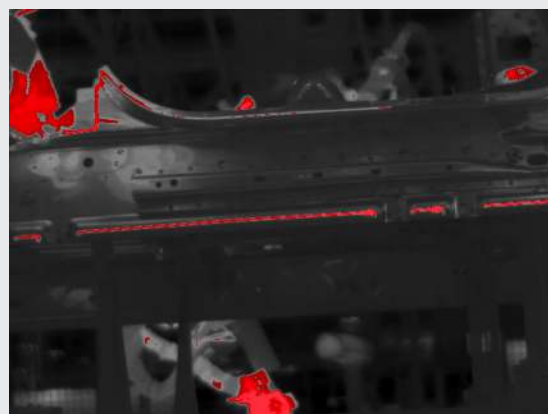
Reduce
Costs



Improve
Quality



A visual inspection can be unreliable and inconsistent. Thermal imaging technology can show whether glue bead or adhesive has been applied properly.



Thermal imaging enables manufacturers to prevent water leaks by ensuring better adhesion between moonroof glass and vehicles.



FLIR A65

