

IR THERMAL INSPECTION

Real-time thermal imaging to monitor the thermoforming and heat-sealing processes in the production line

SOLUTION DESCRIPTION

The IR Thermal Imaging Inspection solution serves two distinct applications:

1. **Thermoforming App:** It monitors thermal images of heated and formed plastic sheets during the thermoforming process. This edge-based solution incorporates closed-loop communication control with a digital twin, offering real-time thermal data monitoring in 2D/3D and quality control of produced plastic sheets.

It is **oriented to industries involved in plastic thermoforming.** This solution caters to home appliance manufacturers, automotive manufacturers, and similar sectors engaged in thermoforming processes.



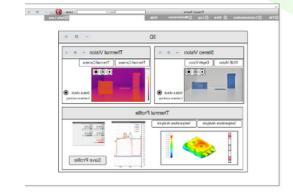
- Monitors thermal images and detect the defects in real time.
- Generates 2D/3D thermal profile of the produced plastic parts.
- Edge-based system, detecting defects in thermal imaging that might not be visually discernible.



This solution serves industries involved in heat-sealing or induction sealing of various packaging types, including capsules, bottles, flow packs, and others.

The main **benefits** are:

- Allows preventive maintenance for good process sequence.
- Real-time about bad process trends.
- Accurate system, detecting defects in thermal imaging, which may not be visually evident.



Thermal Profile Analysis Page



Main screen of IRTI for Heat-sealing

PRODUCT OWNERS:







The ZDZW project has received funding from the European Union's Horizon Europe programme under grant agreement No 101057404.