THERMAL INDICATOR

At the end of the 90s, having discovered instances of many bottles affected by poor storage conditions resulting in spoiled wine, **Laurent Ponsot looked for a way of informing consumers of potential temperature issues.**

Inspired by the markers used in the temperature-controlled supply chain, he considered using the label as the medium for a temperature indicator. Research was started in collaboration with the Dijon wine faculty to determine the temperature above which the wine was likely to spoil.
If wine inside a bottle reaches 28 °C (82 °F), it can be affected.

At the same time, a study on the inertia of glass based on degree of protection and colour was carried out. This identified the average temperature and the exposure time to heat required for all the wine contained in the bottle to reach the critical temperature.

The final step was to find a supplier of heat-sensitive ink capable of reacting as the temperature changed.

And so the "thermal indicator" was invented by Laurent Ponsot in 1999 in the form of a dot printed with **an ink that changes colour when a given temperature is reached**.

In 2017, more advanced experiments were carried out and a supplier was chosen offering the perfect ink, thanks to their expertise in making the inks used in banknotes.

In line with the Laurent Ponsot SAS graphic charter, the thermal indicator affixed to all of the company's labels is green and turns black when the temperature inside the bottle reaches its risk point.
And of course this **process is irreversible**.

This indication of the temperature to which the bottle has been exposed at a given moment is another step towards controlling the transportation and conservation temperature of wines. It's not a foolproof method however.

The sensor on the company's intelligent cases is already more accurate and research is underway to eventually install an actual temperature sensor on each bottle.

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