Texture analysis of two types of raspberry (thawed vs fresh)
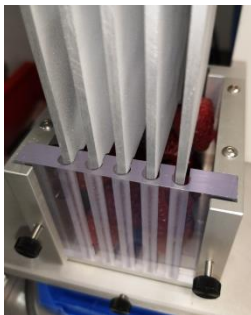
USE

Kramer cell is used for the analysis of multi-particle products such as raspberry, corn, olives or peas. During the test, thanks to the design of the cell, there is a combination of compression, shearing and extrusion.
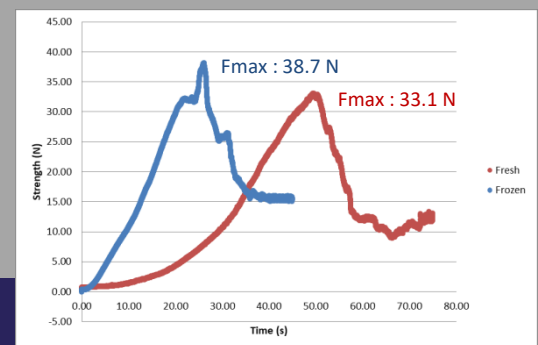
METHOD

During the test, 60g of raspberry (fresh/thawed) are placed inside the Kramer cell. Firstly, the comb is aligned with the cell. Then a 75mm/45mm compression test is launch at 1mm/s. The 250N sensor is used for this kind of soft samples.

EQUIPEMENT

TX-700   +   5 blades   +   Software
                           Kramer cell   (optional)

Fmax : 38.7 N

Fmax : 33.1 N

- Fresh
- Frozen

RESULTS

This compression test conducts inside a Kramer cell allows us to characterize the difference in consistency between different types of raspberry (thawed vs fresh).

Thawed raspberry are denser than fresh one. This difference explains the shifting between the curves (less compression distance needed for the thawed one). The maximal strength (F_{max}) can be correlated to the consistency of the product. We can see a difference between the two types of raspberry. This apparatus demonstrate its ability to determine difference between two different samples.

Thanks to the TX-700 equipped with this cell, it becomes easy to compare and rank a wide variety of small and disparate food products such as raspberry.

LAMY RHEOLOGY INSTRUMENTS