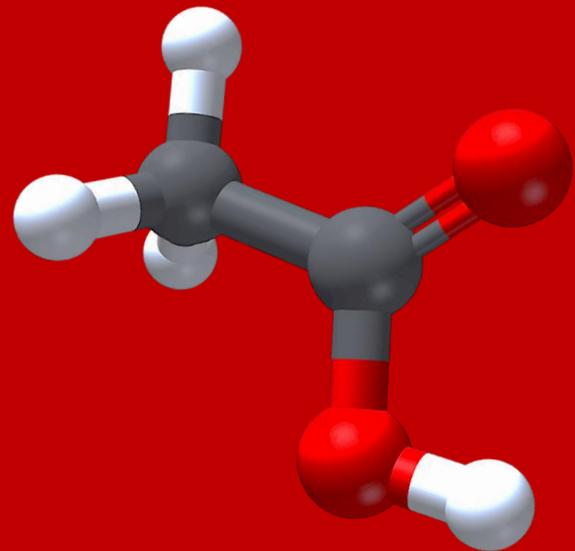


SHELF LIFE

Shelf Life and Expiry Date,
differences worth knowing.



TECH PILLS

SHELF LIFE, EXPIRY DATE

Differences worth knowing

The term Shelf Life refers to the shelf life of a product stored in its original packaging under the storage conditions established by the manufacturer, without any chemical or physical changes that compromise its optimal performance.

The term Expiry Date means the time limit beyond which the product, even if stored in its original packaging under the storage conditions established by the manufacturer, could undergo chemical-physical variations that alter its parameters making it unsuitable for standard use.

SHELF LIFE & EXPIRY DATE:

The factors that influence them

The elements that influence these two parameters are:

1. The packaging choice
2. The formulation stability
3. The storage conditions
4. The transport conditions

The first 2 variables are guided by our technical choices, the 3rd one depends on both our choices and those of our customers, the 4th one is entrusted to third parties and is the least governable

1. The packaging

The packaging ensures the protection of the contents from external factors while maintaining the characteristics unaltered in a specified time frame and allowing proper handling in respect of the health and safety of workers and environment.

The primary packaging is selected both on the basis of the chemical-physical characteristics of the content and of the possible chemical reactions with it. In addition to containing the product, it protects it from contamination and alterations originating from: humidity, light, air and pollutants

It is a good rule to check the primary packaging received to verify its integrity, closure and general solidity.

The secondary packaging allows the grouping of more primary packaging units, facilitating transport and storage operations and protecting them from accidental spills and bumps.

It is a good rule to check the secondary packaging received to verify its integrity and the correct positioning of the contents inside

We conduct multiple tests on the packaging we select, which are part of the advanced quality control and monitoring system designed to ensure reliability and optimal performance of our products over time. Thanks to this scrupulous and continuous data collection it has been possible to exactly define the Shelf Life of our inks and extend it.

2. The formulation stability

The stability of the ink depends on its formulation system, which allows its durability without undergoing changes and variations.

Since the beginning of our history, we have built up a database that collects dozens of parameters for each production batch, including stability over time, which are periodically evaluated by the technical team with the aim of continuous improvement. Periodic analysis of the collected data indicates the absence of significant instabilities in the formulations, certifying the preservation of their properties over time and allowing us to increase the shelf life of our inks.

A solid and stable formulation occurs in use.

These are evident signs of excellent stability:

- *The high printability: the ink works smoothly at any printing speed without blocking the nozzles.*
- *The high "Open Time": the ink allows to reduce the cleaning of the nozzles after prolonged machine stops*

3. The storage conditions

Temperature, humidity and frost affect the stability of the formulations to the point of compromising their chemical-physical characteristics. For this reason, it is essential to store the products as indicated in the technical data sheets which go with the products.

The Novedrate plant has been designed so that the storage areas have a controlled temperature which

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ensures perfect preservation of the product and keeps its chemical and applicability characteristics unaltered.

4. The transport conditions

This is the variable beyond our direct control. How do you deal with it to minimize the risk?

Working at best on variables 1, 2, 3 and on simulation tests that provide valuable information both in the design and product development phase and on any additional precautions that may be necessary for transport such as pallet thermal covers.