

How to proceed to industrial approval?

The principal uses and states of surface mentioned in Novacel Technical Data Sheets (TDS) are indicative. Indeed, despite the surface finishes and processes mentioned in the TDS, many factors can affect the use and performance of Novacel solutions in specific applications.

In consequence, Novacel requires its users to approve, through on-field tests and evaluations, the relevance of the film for their specific applications. On top of Novacel recommendations stated below, the customer can add its own procedures. In such case, it would be appreciated to share them with Novacel, so that Novacel's laboratory is aware of the customer focus and can accompany this additional evaluation.

Preparation: product choice and approval methodology

Once the product(s) to be tested are chosen, on the basis of Novacel recommendations and TDS, the customer receives samples for a first test. If this first test is positively concluded, two semi-industrial tests with the same protocol (but without Novacel teams) have to be performed.

The critical points to assess during the process must be identified and the level of achievement / expectation / measurement for approval have to be shared by both parties.

Who should attend to the first trials on the production line?

- For a Classic film: the NOVACEL salesman and the customer staff
- For an innovation: The NOVACEL salesman and some technical representatives from NOVACEL

The trials

- Film evaluation has to be carried out on each surface film will be used (if you use several suppliers for the color or the surface, please test the film in all configurations)
- If process conditions change, new approvals have to be performed
- Conduct the trials in standard industrial conditions;
- Apply the current film and the new one in the same continuous production window, pausing only to change and install each film variant in sequence;
- All production setting measures must stay within agreed limits (the main ones are the unrolling break setting and the application pressure);
- Assess the behavior of the film in the online application process at all stages of the production process.

What to check to assess the film's performance?

During the industrial approval test, make sure to evaluate the film performance right after lamination, after storage, after transformations and processes involving temperature, humidity, UV, pressure, and after outdoor exposure (UV / Humidity).

We ask to check:

- A. The behavior of the film in the online application process
- B. The behavior of the protected material during the production process and its handling
- C. The visual and textural finish of the film once applied to the product at the end of the production process: is there a good contact between film and surface?
- D. The manual peeling force and behavior during its removal: is it strong to peel off? Does film tend to elongate or tear?
- E. The integrity of the film during removal
- F. The visual and textural finish of the product after film removal
- G. The presence or not of any adhesive residue after film removal. As invisible surface modifications can take place in some cases, make sure to check this point if you know downstream sensitive operations will take place after film removal (example : digital print).

The evaluation D, E, F, and G will be renewed after 48 hours and after different periods defined by the customer and the NOVACEL salesman. Please consider the NOVACEL TDS, as the limit of our condition for guarantee. Ageing tests can be simulated at the NOVACEL laboratory. The results have to be confirmed by the customer in real life conditions.

If the aim of the trial is to replace a solution already in place, then all those evaluations must be done in comparison to the current protective solution.

Conclusion:

After every test, a report explaining what has been done and the evaluation results at every stage of the procedure has to be written.

- For the first test, the NOVACEL salesman, in conjunction with the technical team and the customer will write the report. Once the test results are finished, trial report and protected samples are sent to Novacel to confirm the film chosen.
- Once the semi-industrial tests are finished, the customer writes and shares its report, qualifying the tested film(s). Customer finalization will refer to the initial DT and will close the test report containing the last updated information.