

The Extrusioneers

FACTSHEET How to produce barrier films for safe and hygienic packaging efficiently and in high quality

High-quality barrier films are indispensable for hygienic and safe packaging, such as for food or medical material. Reifenhäuser supplies efficient, high-tech systems to fulfill this need and ensure sustainability and profitability.

1. Mechanical engineering know-how combined with digital solutions

With its highly engineered, fully integrated and automated barrier cast and sheet lines, Reifenhäuser CSC offers a safe and proven solution for the film and packaging industry. The line concepts meet the demand for reproducible and traceable quality with digital solutions for process and performance monitoring, but also with high-precision and reliable system components. This starts with highly accurate dosing systems followed by wear-resistant and pressure constant multipurpose use extruders for an excellent melt quality to guarantee constant supply to the core components of such a line: the coextrusion feedblock and die.

2. Consistent film quality with minimum material usage up to 11 layers

The patented REIcofeed Pro co-extrusion feedblock guarantees the best and most reliable single-layer tolerances, which are crucial to ensure constant barrier, sealing and opening as well as thermoforming properties of the films. It clearly distinguishes itself from competitor systems with its flexibility in layer and resin combination and the possibility of layer distribution adjustment during the running production of all layers. This strong performance advantages will be supported by various flat die designs offering multiple types of flow channel geometries, decklings and encapsulation possibilities combined with automated regulation to offer the best thickness profiles and highest cost-efficiency by using the lowest amounts of resin. This is particularly important since the raw materials account for about 80 percent of the total cost of a barrier film.

3. Reproducible processing settings and traceable production conditions

For consistent quality of the final product, 100 percent traceability and reproducibility of processing settings and production conditions are essential. The combination of REIcofeed PRO co-extrusion feedblock, digital layer control, user-friendly human-machine interface and performance cockpit ensures easy and safe setting and recipe management and thus maximum process and production stability. It is ideal for high-quality packaging of medical material and nutrition – and consequently for reliable health protection and reduced food waste. With its many years of experience and as a member of a worldwide competence network, Reifenhäuser is able to meet individual and specific customer requirements.

Your benefits:

- Reliable and safe film quality
- Perfect layer and film thickness tolerance
- Down-gauging with constant barrier properties
- Significant raw material cost savings
- Easy and safe setting and recipe management



Reifenhäuser single-screw extruders are able to process all common raw materials reliably and particularly economically into a homogeneous melt.



Flat die heads with first-class design: engineered and manufactured by Reifenhäuser.



The **Reicofeed Pro** is the best solution for the production of rheologically challenging multilayer structures with high requirements on the quality of the individual layer distribution. Also available with Digital Layer Control for automatic layer adjustment and control.



high heat resistance and low COF

high heat resistance and film stiffness

bonding

barrier properties and impact strength bonding

barrier properties and impact strength bonding

mechanical strength

low SIT and good sealing properties

Medical Thermoforming Films are just one application example for barrier films produced with CSC technology, in this case a film for EO sterilization and lamination against paper. With CSC lines, films with 1 to 11 layers can be produced to meet any specific customer requirement.