

Short Description

At TechLab we can blend and manufacture Lubricants and polymers at lab scale.

We have facilities to manufacture taylor-made formulations of lubricating oils up to 1,000 liters/batch.

We also have Polymer compounding equipment at pilot scale (Haake, Eurolab, Randcastle, mini equipment, adhesives, etc.)

Deliverable

Developping of taylor-made formulations and first production (at Lab scale (Kg)).

Product packaking and labelling according to a Taylor-made formulation.

Benefits

Blending of Lubricants

- Development of taylor-made formulations
- Processing of blends
- Chemical laboratory tests to quality control
- Homologation & Certification of Products
- Lubricant Packaging and Labelling

Blending of polymers

- Extrusion & Compounding
- Eurolab Extruder
- Internal Mixer: Haake
- Injection Molding
- Miniinjection Machine: DSM Xplore

Differential Features

Formulation-Properties Design

- Influence of the type and concentration of additive
- Effect of matrix components on the improvement of properties

Production

- Automated & Robotized
- Lubricants up to 1,000 L/batch
- Polymers up to 5Kg/h



Robot Blending Lubricantes



Blending de Polímeros



Requirements

- Product Specifications
- New formulations
- Properties required
- Selection of raw materials to meet specifications
- Taylor-made requirements
- Total quantity required

Limitations

- Capacity to manufacture lubricating oils up to 1,000 liters/batch.
- Polymer compounding equipment at pilot scale up to 5Kg/h

The Product in Depth

- Blendings at Lab scale are usually required in order to manufacture new products for future customers or to prove a technology before passing to a industrial-scale.
- In TechLab we offer capacities, know-how and facilities required to manufacture lubricants and polymers adapted to the necessities of our customers.
- We have the necessary equipment to design lubricants and polymers for the first lab scale and we can blend the first Taylor-made formulations.
- We can blend:
 - Lubricants oils up to 1000 liters per batch
 - Polymers up to 5 kg/h

Some Use Cases

- Lubricant for shock absorbers .
- Lubricant for engine oil
- Design of polypropylene for 3D printing

