

Short Description

Design, formulation, characterization structural and evaluation of its properties adhesives in HMA (Hot Melt Adhesive) and HMPSA (Hot Melt Pressure Sensitive Adhesive).

Deliverable

A sticker accompanied by a document with the requested information, which is tailored to the customer's needs. It is mainly accompanied with the detail of the adhesive formulation, a structural characterization of the same, as well as a complete evaluation of its adhesive properties.

Benefits

- Determination of key properties in an adhesive, such as tack or tack over a very wide temperature range (-30°C to 180°C).
- Cohesion and adhesion evaluation on a wide range of substrates (polar and non-polar, porous and non-porous, metallic and polymeric).
- Determination of open time.
- Aging studies.
- Structural characterization.
- Advanced rheological study, Dahlquist criterion, determination of the G' / G'' crossing point, viscoelasticity window, softening temperature and Brookfield viscosity.



ARES Rheometer

Differential Features

- Technology Lab has extensive equipment that allows a complete chemical (NMR, Raman, FTIR), rheological (ARES, Brookfield, Haake) and morphological (SEM, MOP-Raman) characterization of the adhesive.
- Our deep knowledge in this sector allows us to design formulations with bio components and / or biodegradable adhesives with the necessary requirements for each application,



TXTplus Texturimeter



Requirements

- With 1 Kg of adhesive it is possible to carry out a complete characterization.

Limitations

The Product in Depth

Hot Melt Pressure Sensitive Adhesives (HMPSA) are primarily used as self-adhesive in labels, tapes, disposable sanitary and hygienic products. The applications of hot melt adhesives (HMA) are mainly in the packaging, graphic arts, textiles, wood and assembly sectors. They are 100% solid materials (no solvent), with instant or very low adhesion, do not need drying tunnels and are easy to automate. Its main limitations are its low resistance to solvents and chemical compounds and its limited performance in low and high temperature service.

At Technology Lab we offer facilities and knowledge to design adhesives adapted to customer needs. We have chemical modeling tools that allow us to relate structure-final properties of the material.

Some Use Cases

- Biodegradable adhesive design.
- Design of stickers with bio components.
- Adhesive design adapted to a very specific application.

