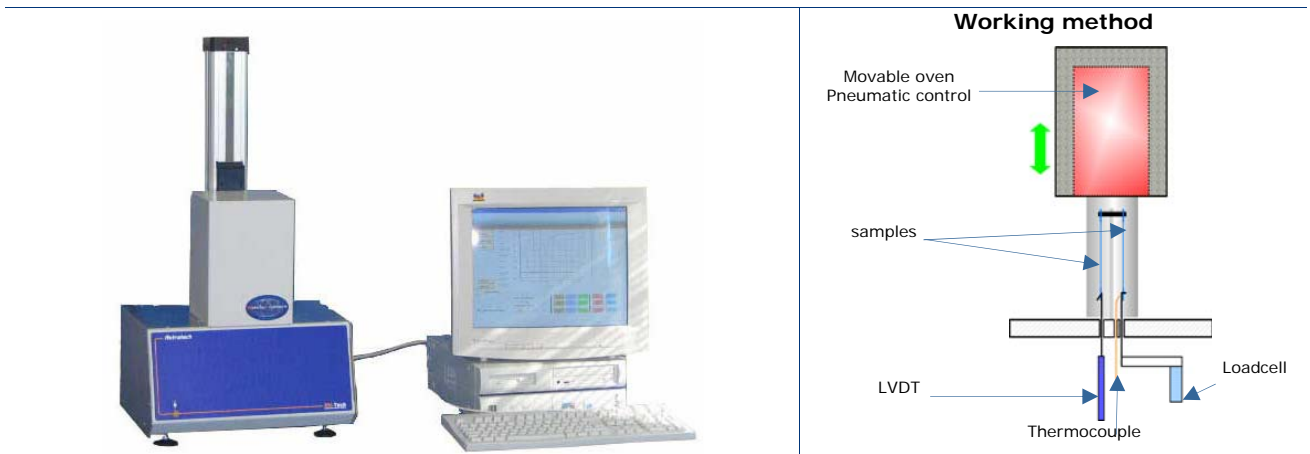


# RETRA TECH shrinkage film test apparatus

Designed for characterisation of shrinkage films, 'load' and 'retraction rate' (PE, PET, PVC, PP, etc.) according, ISO 14616 & DIN 53369 and DIN 53125

Typical users – Petrochemical industries, Manufacturers and Users of shrinkage films.



## Principle

Two samples are exposed to a thermal process. One sample is connected to a LVDT (displacement sensor) and the second sample to a Load cell.

The dedicated software offers functions like setting the test parameters and displaying, storage and analysis of the test results, which are:

- ⊕ Retraction - force(N), rate(%) and temperature
- ⊕ Contraction - force(N)

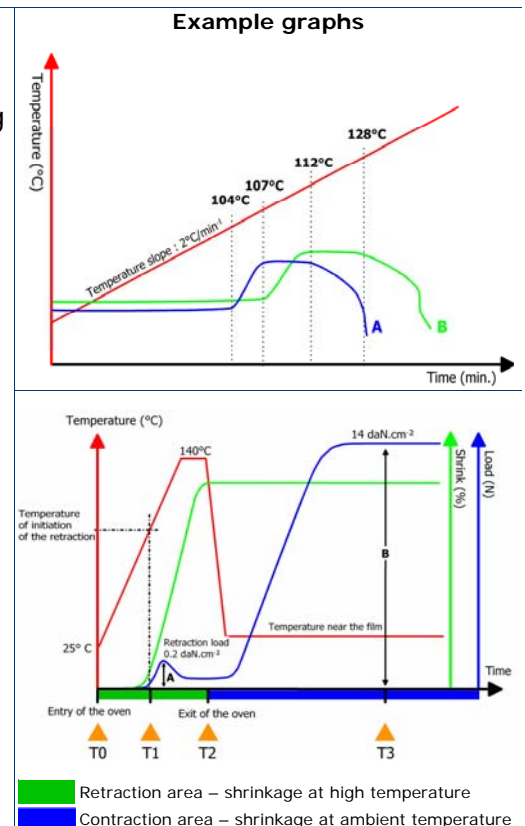
## Two test methods

1. "Thermal rise" mode (2°C/min.), allows determining the temperature at which shrinkage begins and where the maximum shrinkage is reached.

The oven is lowered and remains over the samples. The heating process is controlled according a fixed temperature against time.

2. "Simulation" mode, simulating the behaviour of the film in a retraction tunnel. This test has to be carried out on samples of both, machine and cross direction.

The oven is lowered over the samples. After a preset time the oven is automatically lifted. The force, displacement and temperature are continuously displayed and registered.



## The **RETRATECH** is used for:

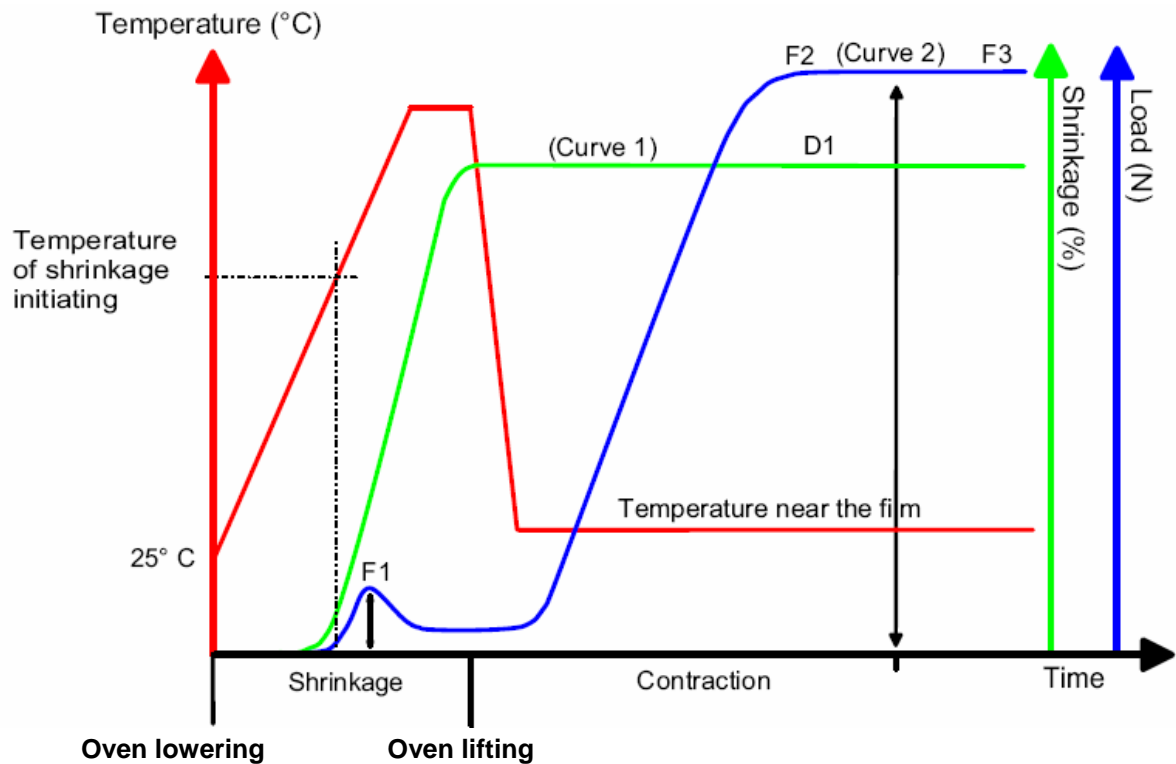
- ⊕ Research & Development
- ⊕ Control on incoming goods
- ⊕ Formulation optimization
- ⊕ Waste reduction
- ⊕ Packing process optimization

## Two parameters are measured

**Shrinkage** – A displacement sensor (LVDT) allows determining of the shrinkage rate (curve 1)

**Load** – A load cell measures shrinkage and contraction forces (curve 2)

Forces and shrinkage rates are displayed in a graph with time and temperature.



## Supported Standards:

ISO 14616 / DIN 53369 / DIN 53125

## Specifications

Load measuring range	20N
Shrinkage measuring range	Up to 90%
Temperature range	ambient + 10 to 300°C
Oven internal dimensions	180 x 18 mm
Specimen dimensions	100 x 15 mm
Software VeePro - USB	Windows 2000/Me/XP
Supply:	- Mains 230V/50 Hz - Pressurised air 5 Bar, dry air
Weight	30 kg.
Overall dimensions – W x D x H	50 x 40 x 60 cm

## Artec Testnology

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