

Application Package

Thermo Scientific HAAKE PolyLab QC

Mixer Tests for the PVC Industry

Order-No. 567-0060

Application

Working on product improvements and new developments in the PVC industry the Thermo Scientific™ HAAKE™ PolyLab™ QC is designed to meet your most demanding requirements in research and development.

If it comes to testing of PVC formulations - the fusion behavior, the compound stability, the processing behavior – the laboratory mixer is still the ideal measuring tool.

A laboratory mixer is very sensitive to any changes caused by the compound formulation, or any changes of the Dry Blend components, like the resin itself, the used additives and the added fillers.

Typically a PVC Dry-Blend is a mixture of the basic PVC resin, fillers, processing aids, like softeners, stabilizers, inner and outer lubricants and other additives. Each component has an effect on the processing behavior of the compound.

Unlike a normal thermoplastic polymer, PVC does not melt, if it is just exposed to higher temperatures.

PVC needs additional shearing and compression forces to bring the PVC particles to agglomerate and finally to form a homogenous melt. In a laboratory mixer this processing behavior can be studied by measuring the drive torque, and recording this torque over the mixing time.

Advantage at a glance

- Highly modular torque rheometer platform
- Mixer and extruder applications
- Intuitive Thermo Scientific™ HAAKE™ PolySoft OS
- Programmable Mixer Software for automated measuring and evaluation
- World-wide Application and technical service



Thermo Scientific HAAKE PolyLab QC

The PVC Mixer Package offers a tailored instrument configuration for the PVC industry, suitable to cover their entire mixer testing needs.

Scope of delivery

Order number	Description
567-0050	HAAKE PolyLab QC
567-6010	PolySoft OS Mixer Test and Data Evaluation for Windows
567-1110	Thermo Scientific™ HAAKE™ Rheomix™ 600 QC
557-1030	Set of Roller Rotors
567-1080	Mixer cleaning tray with holder
557-1130	Manual ram for HAAKE Rheomix 600
799-6301	Protection equipment & Cleaning tools

Literature

- [1] Thermo Scientific Application Note LR72 "PVC Mixer Test-Reproducibility and Influence of Test Conditions" Mathias Jährling
- [2] Thermo Scientific "PolyLab product brochure" 623-3092 2015/06

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Material Characterization

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