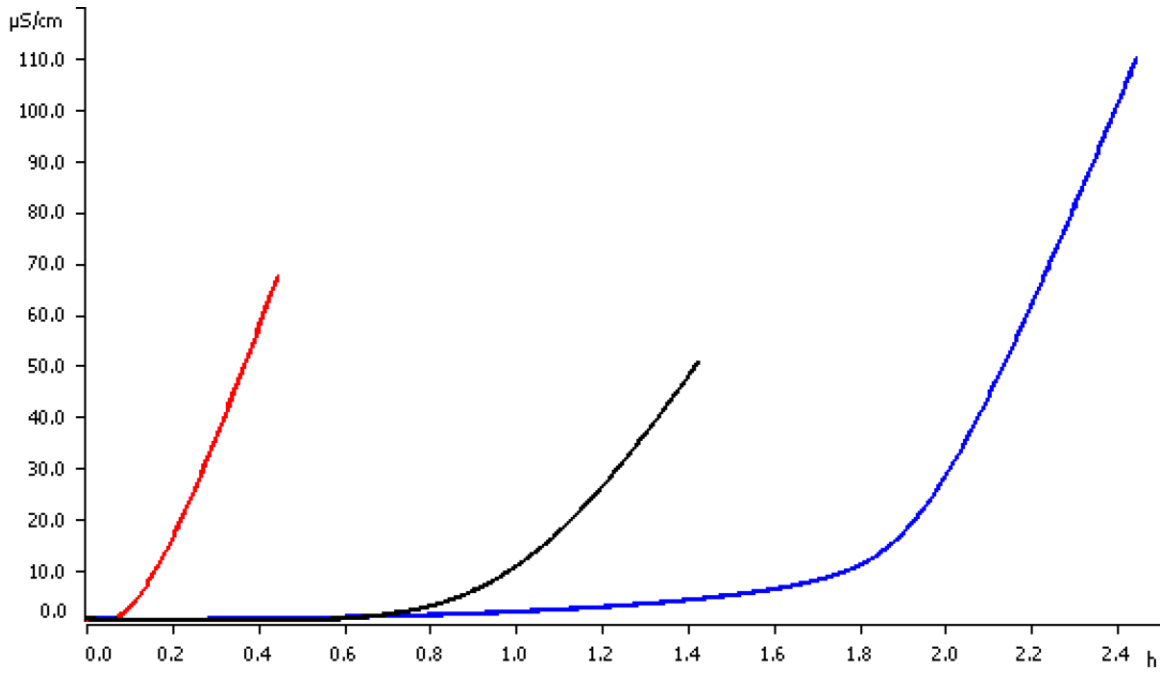
Stability Application Note R–008

Thermostability of pure, blended, and processed PVC



Determination of the thermostability of polyvinyl chloride (PVC) using the dehydrochlorination procedure at 180 °C. Comparison of the thermostability of pure PVC polymer, blended PVC (blended with stabilizer, plasticizer, filler) and blended PVC after processing.

Results

	Sample	Temperature	Stability time
——	Pure PVC	180 °C	0.37 h
——	Blended PVC	180 °C	2.15 h
——	Processed PVC	180 °C	1.42 h

Metrohm

Method description

Sample

PVC

Sample preparation

The PVC material is ground to a particle size <1 mm.

Instrument

895 Professional PVC Thermomat

Parameters

Temperature	180 °C
Nitrogen flow	7 L/h
Evaluation	Stability time
Conductivity change	50 µS/cm
Stop criteria	End points
Sample amount	0.5 g
Measuring solution	50 mL deionized water