APPLICATION **SHEET**

Polymers – *Identify* Software

Confirmation of a PE/PA Blend by Means of *Identify*

The new *Identify* software which is an extension of the NETZSCH *Proteus®* software …

■ is a unique DSC curve recognition and interpretation system providing results with a single click!

■ is useful for material identification and quality control.

■ is both easy to use and sophisticated.

■ is a database with NETZSCH libraries for polymers as a basis that can be extended by user libraries!

■ manages measurements, literature data and classes involving the user's knowledge.
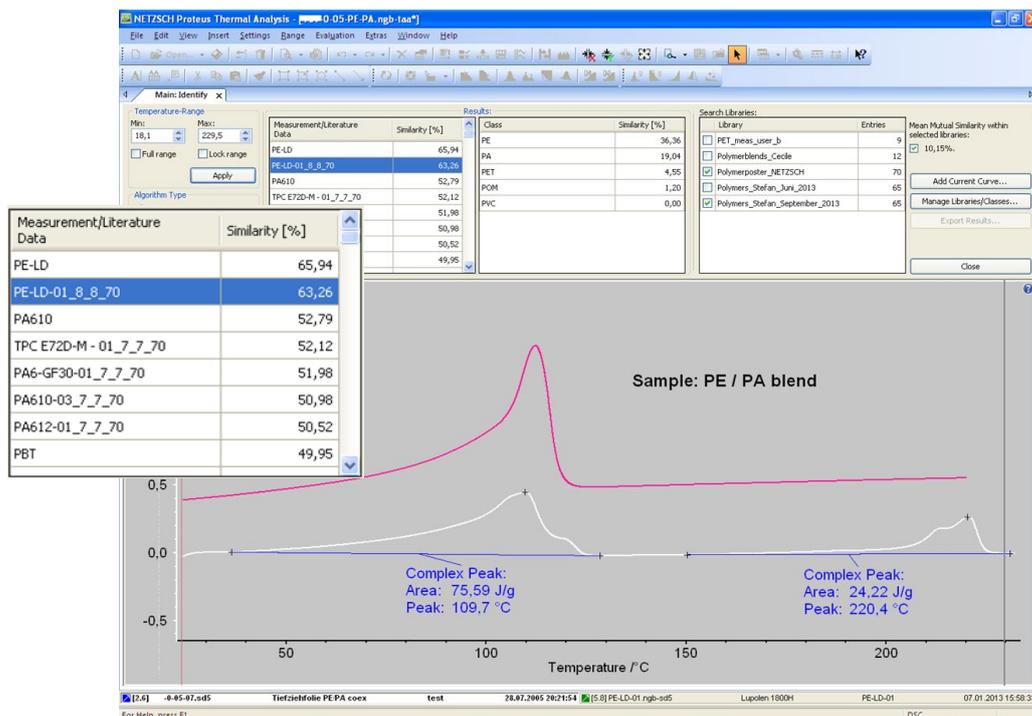

Figure 1a. DSC measurement on a PA/PA foil, investigated by means of *Identify*

A DSC measurement (2nd heating) on a foil, presumably consisting of a PE/PA (polyethylene/polyamide) blend was investigated using *Identify*. As can be seen from the results shown in figure 1a, the first endothermic melting effect in the measured curve (white) – detected at a peak temperature of 110°C – is due to PE-LD (low-density polyethylene):

Both the literature data for PE-LD and the database measurement on PE-LD (pink curve) show the highest similarity of about 65% to the measured DSC curve. The similarity to the PE class (36.4%) is additionally much higher compared to other classes.
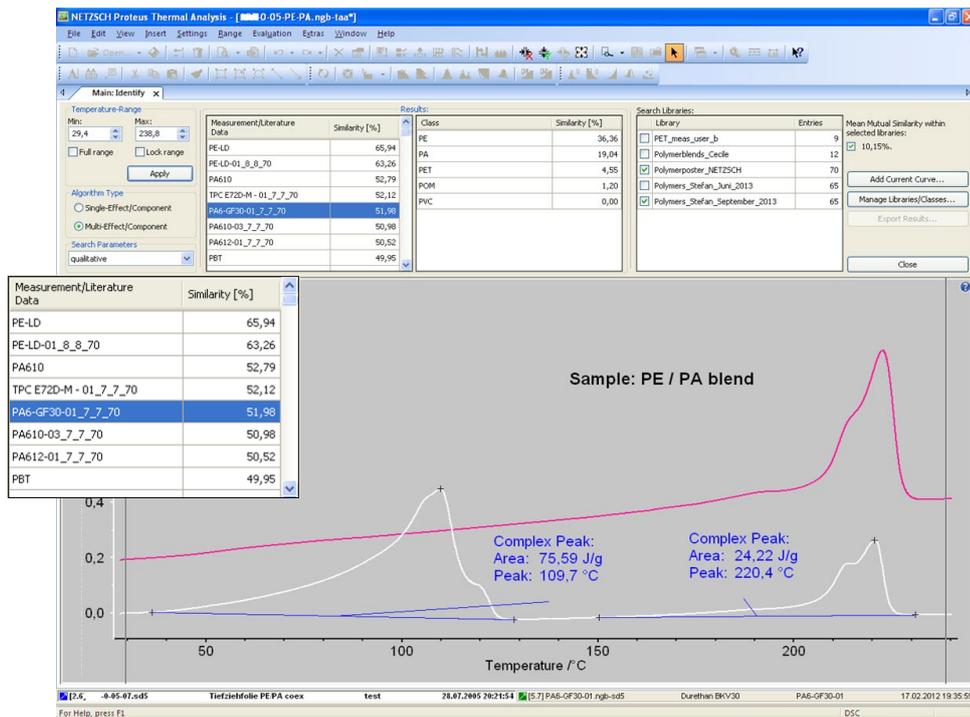
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Figure 1b DSC measurement on a PA/PA foil, investigated by means of *Identify*

Figure 1b shows that the second melting peak at 220°C is due to a polyamide such as PA6, PA610 or PA612. Displayed as a comparison is the database curve (pink) for PA6-GF30 with a similarity of 52.0% to the measured curve (white).

In summary, it could be confirmed by means of *Identifiy* that the material is a PA/PE blend, as specified by the supplier.

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