APPLICATION **SHEET**

Rubber – *Identify* Software

Investigation of an Unknown Rubber Sample 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

- … includes a database with NETZSCH libraries for polymers as a basis as well as libraries that can be created by the user.

- **…** manages measurements, literature data and classes, incorporating the user's knowledge.
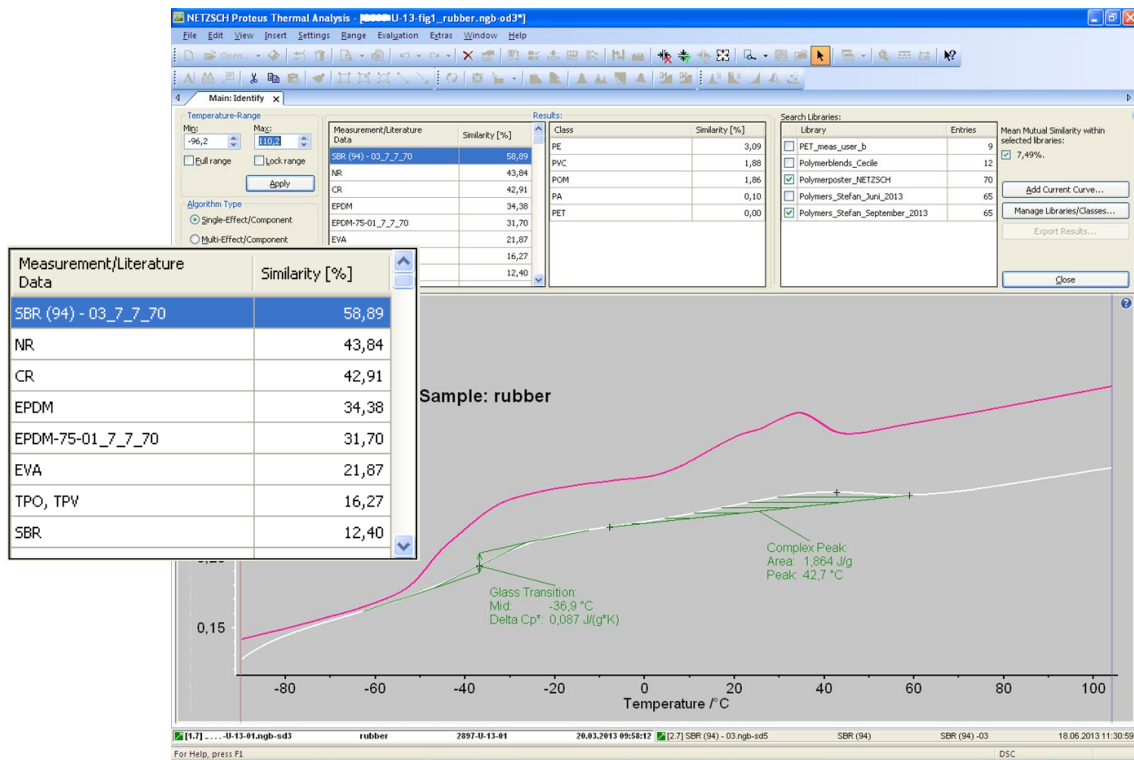
Identify results after only one click on a DSC curve; the white lines represent the unknown curve, the black lines the most similar database curve.

The unknown rubber sample (white DSC curve) shows a glass transition at about -37°C and a small endothermic melting effect at about 43°C, i.e., peak temperature during the 2nd heating. These results lead to the following identification: The highest similarity of 58.9% between the unknown and database entries can be found in the measurement on styrene-butadiene rubber (SBR) displayed in pink. The database entries "Natural Rubber (NR)", "Chloroprene Rubber (CR)" or "Ethylene-Propylene-Diene Rubber (EPDM)"– all literature data from the NETZSCH "Thermophysical Properties of Polymers" poster – follow in a decreasing order of similarity. There is virtually no similarity between the unknown curve and polymer classes like PE, PVC or POM as the hit list on the right shows.

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