

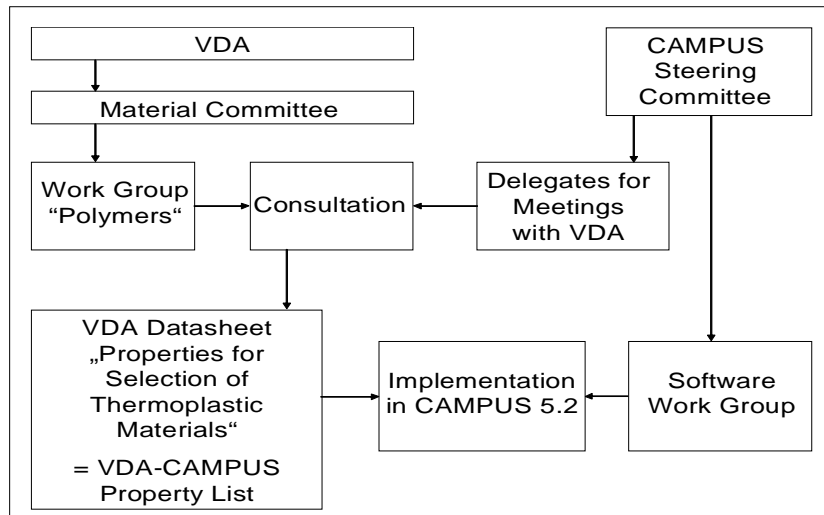
The plastics database CAMPUS has become an important information system for the plastics industry. The main difference between CAMPUS and other systems is the high data quality and the availability of design data. Based on rigorous rules about the test procedure, CAMPUS data represents truly comparable information and has been accepted in the whole industry as the most dependable source of information.

The automotive industry is using so called specifications for the acceptance of materials in certain applications. These specifications define for each case all technical requirements to the material. Specifications have been developed and modified over many years, they have become rather inhomogeneous.

The industry has not developed any comprehensible rules for the preparation of specifications. They refer to completely different standards, depending on preferences at the time, when they were generated. Each automotive OEM has developed a distinct system; general rules for the whole industry have never been established. For plastic resin suppliers, this inhomogeneous system results in extreme efforts for material testing and documentation.

Under the umbrella of the German Association of the Automotive Industry (VDA) a work group "Polymers" was established. In this committee a group of specialists from different companies in the automotive sector is engaged with the question, how a harmonization of these specifications could be possible. The goal is to generate a list of preferred properties for thermoplastic materials to evaluate the applicability and compare alternatives. The focus is to define relevant properties to be used in the specifications. The required values for each specific application must later be decided in each case by the designers.

As a result of this work, the document called "Properties for Selection of



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"Thermoplastic Materials" will contain a list of material properties which are considered to be important for material selection in the automotive industry.

During the regular meetings of the VDA work committee, delegates from the CAMPUS group were invited, in order to incorporate the specific competence of the plastics producers into these considerations.

The group realized that more than 80% of all material properties, required by the automotive industry, are already covered by CAMPUS. However, there are some areas, which are not sufficiently presented by CAMPUS. For these cases the group managed to define new properties, especially in the field of aging and chemical resistances. Since this material information is of extreme importance to the automotive industry, the CAMPUS consortium decided to extend the data content of CAMPUS accordingly. This will become effective with the new version 5.2 by the end of 2009.

In order to highlight the new property list, CAMPUS will have a new feature, which allows to print a VDA-CAMPUS datasheet for each material.

The plastics producers expect that this development will contribute to a general acceptance of the new properties for specifications in the

long term.

The new properties include a couple of chemical resistances. Several new chemicals have been added to the CAMPUS list.

These are:

Diesel: EN 590,

Coolant: Glysantin G48 , BASF AG, 1:1 in water,

Brake fluid: ISO 4925(DOT4),

Motor Oil: OS206 304 Reference Engine Oil, Prod. ISP, Salzbergen,

Automatic Hypoid-gear Oil: Shell Donax TX,

Hydraulic Oil: Pentosin CHF 202.

Also new is the use of an indicative property (in the first step Charpy impact) to assess resistance. In addition some new properties will be added to cover Aging and Weathering. Completely new for CAMPUS are properties to report emissions and odor. The VDA-CAMPUS list differentiates properties needed for applications in the interior, engine compartment and exterior.

A list of the new features and properties in CAMPUS can be requested from M-Base. Information about CAMPUS is available at

www.CAMPUSplastics.com.