M-Base News No. 37 October 2009

Cooperation CAMPUS® - Automotive Industry

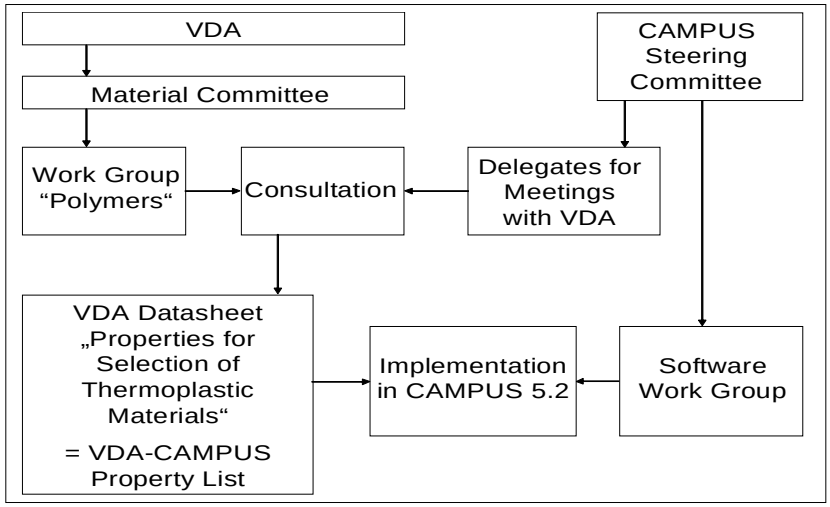
The plastics database CAMPUS has become an important information system for the plastics industry. The main difference between CAMPUS and other systems is the high data quality and the availability of design data. Based on rigorous rules about the test procedure, CAMPUS data represents truly comparable 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 Thermoplastic Materials" will contain a list of material properties which are considered to be important for material selection in the automotive industry.



Context of Cooperation CAMPUS VDA

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.

M-Base
Engineering + Software GmbH

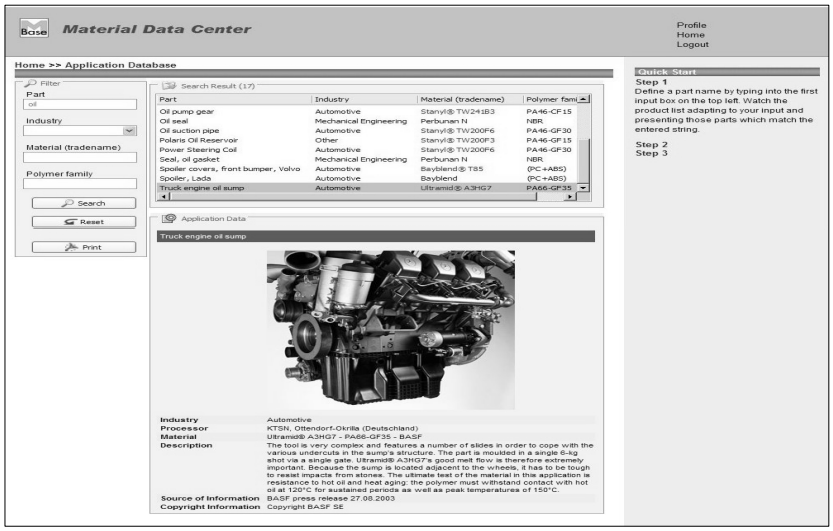
Dennewartstr. 27
D-52068 Aachen
www.m-base.de

Phone: +49-241-963-1450
Fax: +49-241-963-1469
E-mail: info@m-base.de

M-Base News No. 37 October 2009

Material Data Center

Our internet information platform Material Data Center is increasingly used by decision makers of the plastics industry. One of the reasons for this success is that Material Data Center does not only offer comprehensive datasheet information, but also non-numerical information like text books, articles from magazines and application examples.



Application Database

New Content: Additive Handbook

With the latest release, Material Data Center offers the complete text of the book Plastics Additives Handbook by Zweifel, Meier e.a. published by Hanser, for full text search. Material Data Center offers a function to scan all contents of the system for key words. All hits will be listed and direct links to each reference are possible. From the relevant page, where the hit was found, users may scroll back and forth.

Data Quality

In the beginning, Material Data Center was designed as a system to present CAMPUS data comfortably on the internet. By now the data content has grown and includes comprehensive collections of data from other sources. When selecting the data content and entering data to Material Data Center, we work very close with the relevant material producers. It is our principle philosophy that the suppliers are the only reliable source of material information. They have invested heavily in the material tests and therefore the generated data is their intellectual property. We from M-Base develop systems to manage this data and help the suppliers to handle the data and distribute it to qualified users, but we respect the producers as the original source and principal owners of the data. This attitude helped to build up mutual trust between us and the material suppliers, which guarantees the best data quality in Material Data Center. There is one more substancial difference between Material Data Center and other material databases on the market. If suppliers let us know that certain grades are no longer available, the materials will be taken off Material Data Center at once. We do not want to maintain a graveyard of material data, filled up with obsolete grades, just in order to increase the number of materials in our system, as most other databases do. We strictly promote our system by data quality and not by numbers.

	free	free after registration	annual fee
Datasheets	ü	ü	ü
Complete content of CAMPUS	ü	ü	ü
Comprehensive ISO and ASTM data	ü	ü	ü
Biopolymer database	ü	ü	ü
Numerical search			ü
Direct comparison of grades			ü
Convenient pdf print			ü
Application database		ü	ü
Tradename directory fo plastics and additives		ü	ü
Articles from Kunststoffe international; abstracts	ü	ü	ü
Articles from Plastics Technology	ü	ü	ü
Full text from International Plastics Handbook	ü	ü	ü
Full text from Plastics Additives Handbook	ü	ü	ü
Multipoint data	ü	ü	ü
with graphical functionality			ü
Toolbox			
cooling time calculation			ü
flow length calculation			ü
snap fit calculation			ü
calculation of parameters for material models			ü
CAE interfaces			(special version)

Overview of Content and Functions of Material Data Center

Application Database

Material Data Center offers another very helpful tool for designers. The application database includes hundreds of cases, how plastics are used successfully. Each case introduces a real part, including a graph and information about the material that was used (with link to the datasheet) and information, why this material was selected. It is possible to search for different criteria in this application database.

This system is a very useful help for designers, who want to conclude from realistic and proven applications to the relevance of a material for a new application.

M-Base
Engineering + Software GmbH

Dennewartstr. 27
D-52068 Aachen
www.m-base.de

Phone: +49-241-963-1450
Fax: +49-241-963-1469
E-mail: info@m-base.de

M-Base News No. 37 October 2009

Search Engines, easy Access to Plastics Information

For many years now, decision makers in the plastics industry can rely on material databases. Lately interactive access via internet is preferred by most users. The internet versions of CAMPUS WebView and Material Data Center meet this requirement and have become leading information sources for the whole international plastics industry.

We now have to realize a new trend, how people access material information via internet. Many decision makers do not bother with memorizing reliable weblinks or bookmarking them in their browser. They rather enter keywords into a search engine and await the result.

Databases with interactive user interfaces and a registration procedure have a disadvantage, because the robots do not reach their content and hence it will not be recognized and indexed in the search engines. There is a risk that websites with unreliable content are favoured. In order to improve this situation, and at the same time, accommodate the need for comfortable access to information, we have developed new modules for the systems CAMPUS, as well as Material Data Center. These modules prepare the content of our systems specifically for search engines and allow for a proper indexing. A search for any term or material name that is included in our databases will now most probably lead to a link to the relevant datasheet. For most visitors this result is sufficient, because they are only interested in quick access to one specific datasheet or even only one property. If needed, this datasheet can be used as a starting point for further inquiries. From here one can navigate to other materials, other producers or just start the complete database for further investigation.

It can not be predicted, whether search engines have indexed the right terms and will find the requested datasheets in all cases. But there is an easy trick. When entering the requested key word, e.g. a material name add the term "CAMPUS" or "M-Base" and the search engine will most likely find the requested datasheet from our databases.

www.materialdatacenter.com

- **all CAMPUS data**
- **comprehensive overview of market**
- **powerful search/sort functions**
- **easy pdf print**
- **application database**
- **multipoint data**
- **price: 350 Euro/year**
- **CAE interfaces available on special request**

ANSWER SHEET:

M-Base Engineering + Software GmbH, Dennewartstr. 27, D-52068 Aachen, Fax: +49-241-963-1469

Please send us more information about:

☐ Material Data Center
☐ CAMPUS
☐ Cooperation CAMPUS - Automotive Industry

other: _____

For new readers:

☐ I would like to receive M-Base News by e-mail in future.

Title, first name, last name: _____

Company: _____ Phone: _____

Position, Department: _____ Telefax: _____

Address: _____ E-mail: _____

M-News 37e-i

M-Base
Engineering + Software GmbH
Dennewartstr. 27
D-52068 Aachen
www.m-base.de
Phone: +49-241-963-1450
Fax: +49-241-963-1469
E-mail: info@m-base.de