

PROF. MUSCAT Consulting
The plastic experts

Plastic analysis Plastic chemistry
Literature searches Seminars

Prof. Muscat Consulting provides development and consulting services to the plastics industry. We are focused on providing practical solutions to product and manufacturing problems through the application of polymer chemistry and analysis. Moreover, we develop and optimize formulations, carry out literature searches and in particular patent literature and provide training.

Due to our many years of experience in the plastics industry and in universities in Germany and abroad, we have an in-depth and comprehensive knowledge of polymer chemistry in the fields of process and product development, analysis and properties of plastics and we speak German, English, Dutch and French.

We also work closely with national and international experts from the fields plastic processing and construction, so that we can offer you unique creative interdisciplinary solutions.

Plastic analysis

Our department Plastic Analysis analyses and characterises your plastics and has experience in the following fields:

- Failure analysis of plastic parts
- Detection and evaluation of aging phenomena
- Aging tests of plastics
- Protecting plastics against degradation by stabilisers and antioxidants
- Specifications of raw materials
- Problems with plastic processing
- Analysis of components of formulations
- Quality assurance and monitoring
- Planning and equipping an analytical laboratory





Our analytic laboratory equipment:

- Climatic chamber
- Scanning electrode microscope (SEM)
- Mass spectrometry
- Microscopy and determination of particle size
- Size exclusion chromatography (SEC)
- (Head-space) gas chromatography
- UV/VIS-spectroscopy
- Transmission- and ATR-FT-infrared-spectroscopy
- Thermogravimetric analysis (TGA)
- Melt flow index (MFI)
- Ubbelohde and rotational viscosimetry
- Filler content
- Residue on ignition
- Karl-Fischer-titration
- Differential scanning calorimetry (DSC)
- Oxygen permeation measurements

Plastic Chemistry

Our department Plastic Chemistry carries out research and development projects for you or supports you with our broad expert knowledge. We can offer you, for example, the following services:

- Formulation development
- Modification of the properties of plastics with the help of fillers, nano particles, stabilisers, pigments, dyes, plasticizers, hyper branched polymers, flame retardant, cross linkers, ...
- Optimisation of raw materials
- Support of scale-up projects
- Help in case of production problems

The facilities at our institute are a chemical and an analytical laboratory; additionally, we cooperate with the professors from other departments of the University of Applied Sciences in Rosenheim, e.g. in the framework of externally funded projects.



If necessary, we build up a team with national and international experts from the fields plastic processing and construction to solve your specific problem.

Literature searches

Prof. Muscat Consulting conducts literature searches, especially in patent literature, including the evaluation of the information.

Knowledge of the literature at the start of a research and development project saves time and money, because you avoid duplicating the work of others.

With the help of patent searches you can track the activities of your business rivals, you can obtain new ideas for capturing market share and you can keep up-to-date with new trends and developments.

Seminars

Prof. Muscat Consulting offers training in polymer chemistry as well as in analysis, properties and testing of plastic materials for management, scientists, engineers, technicians, operators and marketing or sales personnel. Seminars can be held at your company or at the University of Applied Sciences in Rosenheim.

In case you also need training in plastic processing, Prof. Muscat Consulting offers seminars in collaboration with experts from our network with the University of Applied Sciences in Rosenheim.

You can choose between group seminars as well as private courses, always tailored in length and complexity to your specific needs, interests and experience.

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Location:

The institute is located on the campus of the University of Applied Sciences of Rosenheim.

Information concerning the University and how to get there can be found at the website

www.fh-rosenheim.de