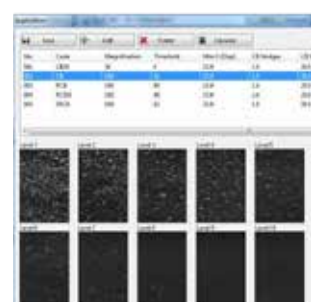
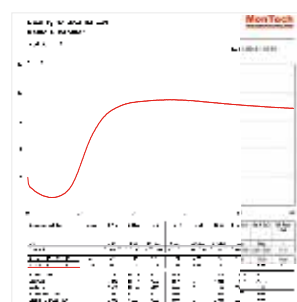
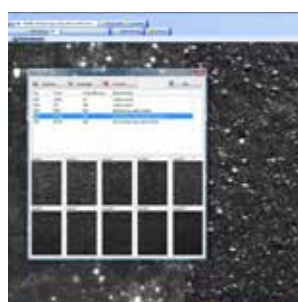
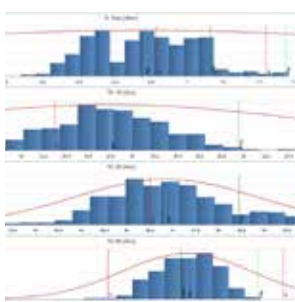
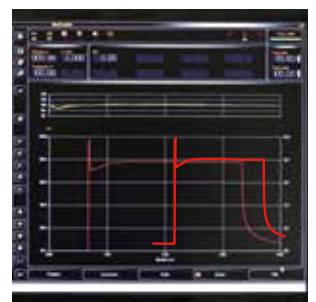
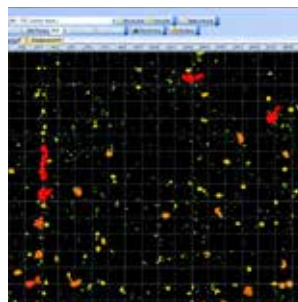
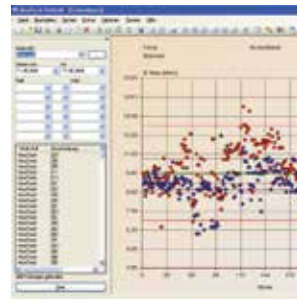
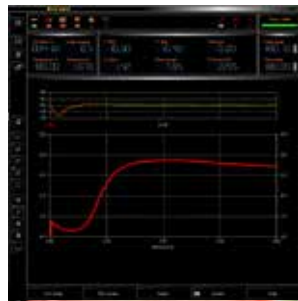


Software Systems



**INNOVATIONS IN
RUBBER TESTING**



MonTech Software systems

The IT-backbone of your lab operations!

The MonTech family of software solutions is designed with the lab manager in mind. Keeping data organized and readily available is becoming an absolute necessity for any size laboratory. The versatility of each solution allows you to quickly modify and manage complex formulations, incoming raw materials, or collect all data forms from a laboratory and analyze results instantly.

Each software solution can be easily integrated and features standalone operation, plant-wide operation, or can be activated to share information between multiple laboratories. With its extensive built-in features for instrument, test specification and sample management, MonTech software solutions will generate, store and report on valid and traceable data to support your quality and laboratory processes.



Key features of MonTech integrated Laboratory software solutions:

- Role- and group based, multi-layer user concept
- Full sample processing beginning with the master data level up to order and sample data
- Freely definable workflows including sample preparation and ageing
- Reliable sample traceability with barcode and RFID support
- Multi-site data management for entire QC and R&D data
- Automated order processing with Pass / Fail testing and instant production feedback
- Integrated flexible reporting and document management system

MonTech Software systems

Software Solutions Overview

MonTech software systems will allow you to redefine your laboratory processes for improved efficiencies, cost savings and compliance with a configurable and expandable system that will grow with your business and support your data management needs in the future. Take advantage of the pre-configured solution that helps your laboratory improve efficiency, maintains records and traceability, and meets your compliance requirements for e.g. ISO 17025, IATF 16949, FDA, ...



MonQuality

A fully integrated Laboratory Information Management System



MonRecipe

Bringing consistency and traceability to your Compound and Recipe development processes



MonControl

the most easy-to-use and versatile instrument control software



MonStat

the innovative Statistical Process Control (SPC) and reporting solution



Customisation and integration services

Why pick MonTech integrated software solutions to run your lab?

Most Modern Lab Software Solution

Reduce maintenance costs and increase scalability by using the latest, industry standard technologies.

Right Information Management and lab order execution system for You

Pick from our prepackaged or pre-validated editions to accelerate implementation and go live faster.

Range of Services

Our implementation, validation and managed services make adoption and maintenance easier.

Innovating Faster

We are innovating faster, adding features that will maximize the value of your lab software system over time.

MonTech Software Systems

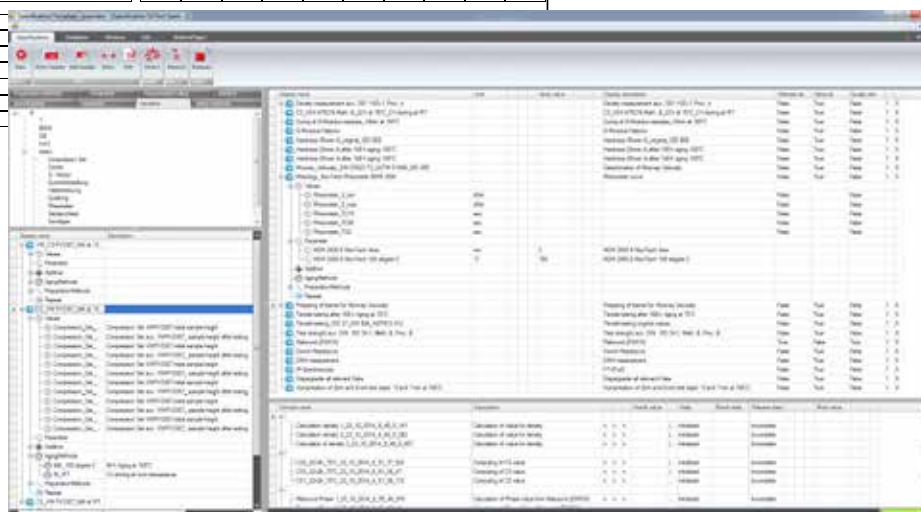
MonQuality Laboratory Information Management System LIMS



MonQuality - A fully integrated Laboratory Information Management System

Information is the biggest asset in every lab. Our MonQuality Laboratory Information Management System (LIMS) helps you to guarantee its integrity and enhance its value. MonQuality has been designed to help you to meet all your information management objectives, manage all your complex lab processes and provide exactly the information needed, at the right time and in the right format. MonQuality flexibility is manifested in multiple levels of the system, from automated workflow and records management to closed-loop traceability. Developed specially for the rubber and polymer industry, providing unique features such as full multi-site collaboration capabilities, remote data access and customized reporting, MonQuality LIMS truly is the ideal software platform for your laboratory.

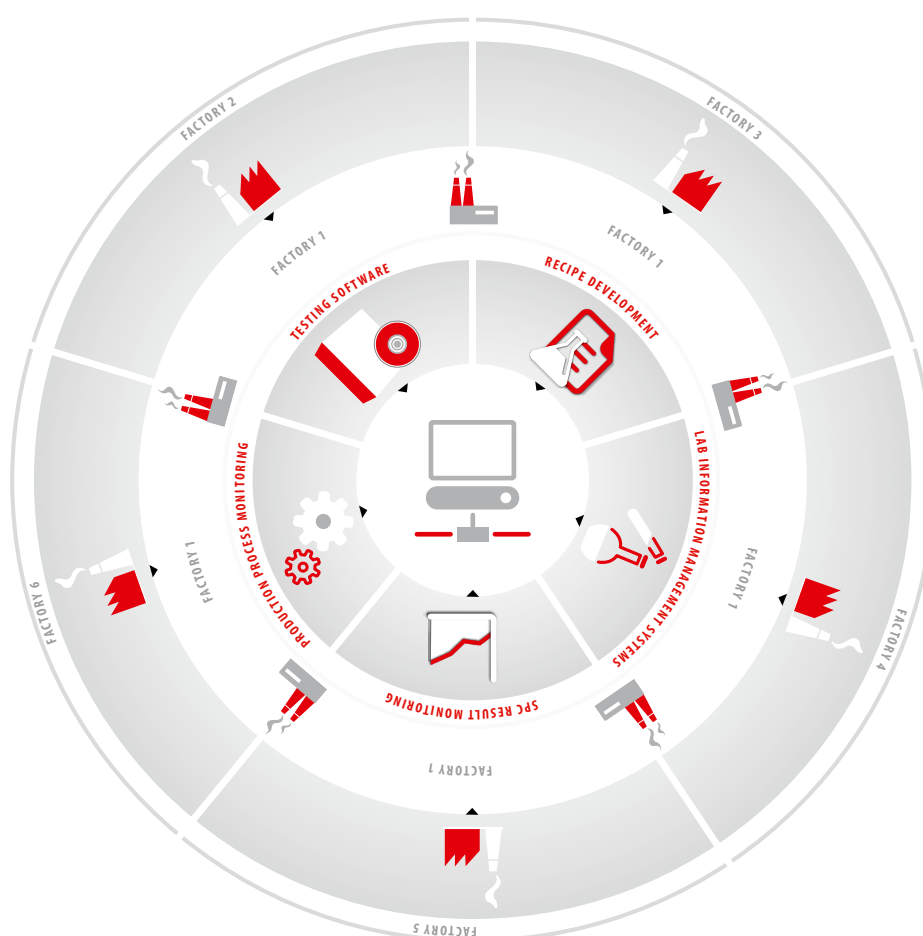
Seite 1 / 1 26.03.2015		MonTech Werkstoffprüfmessmaschinen GmbH									
Material: MonTech Demo1											
		S' Min	S' Max	TC 0	TC 10	TC 90	Time to Peak	Time@End of Test	S' Peak Rate	Final Temperature	Peak Rate (S/min)
Obere Toleranzgrenze		1,50	21,00	n/a	78,00	162,00	97,20	0,00	9,03	0,00	22,79
Obere Kontrollgrenze		1,32	19,16	n/a	72,00	156,00	94,20	0,00	8,77	0,00	21,96
Obere Wangrenze		1,16	18,64	n/a	66,00	150,00	91,20	0,00	8,52	0,00	21,13
Sollwert		1,00	18,00	n/a	60,00	138,00	88,20	0,00	8,26	0,00	20,29
Untere Wangrenze		0,85	17,61	n/a	54,00	126,00	85,20	0,00	8,00	0,00	19,46
Untere Kontrollgrenze		0,69	17,10	n/a	48,00	120,00	82,20	0,00	7,74	0,00	18,63
Untere Toleranzgrenze		0,50	15,00	n/a	42,00	114,00	79,20	0,00	7,48	0,00	17,80
		dhm	dhm		Sec	Sec	Sec	Sec	dhm	°C	dhm/Min
Anzahl		6	6	1	6	6	6	6	6	6	6
Minimum		0,76	16,31	5,9	21,70	99,82	27,00	234,00	7,13	160,10	18,01
Maximum		1,96	28,76	5,9	69,20	146,38	90,20	480,00	8,30	189,98	37,39
Mittelwert		1,21	20,96	5,9	50,59	129,91	67,83	349,00	7,60	182,51	24,76
Standardabweichung		0,54	5,61	0,0	20,56	21,34	28,91	95,52	0,41	10,27	8,94
Varianz		0,29	31,48	0,0	422,55	455,48	836,97	9125,00	0,17	105,39	79,88
Varianzkoeffizient		0,44	0,27	0,0	0,41	0,16	0,43	0,27	0,05	0,06	0,36
Material											
WS 302											
RR 100138											
RR 100138											
WS 302											
RR 100138											
RR 100138 neu											



MonQuality easily allows you to manage and trace all your compounds with fully digital workflows including test and control plans and work order instructions and specifications providing you with any required information of any laboratory related process such as sampling, routine quality control testing, customer specific or custom testing and research and development work orders at any time. MonQuality features full integration of any MonTech testing instrument as well as also the possibility to connect, send and retrieve data from any kind or type of third party instrument.

MonTech's Strategic Software Consulting team is an essential resource for complex laboratory IT projects that cut across areas of technology, business and scientific processes. Let us help you to resolve the complex planning and execution tasks associated with your LIMS project.

With our certified project management and transition services, a smooth software implementation and your project's success is guaranteed!



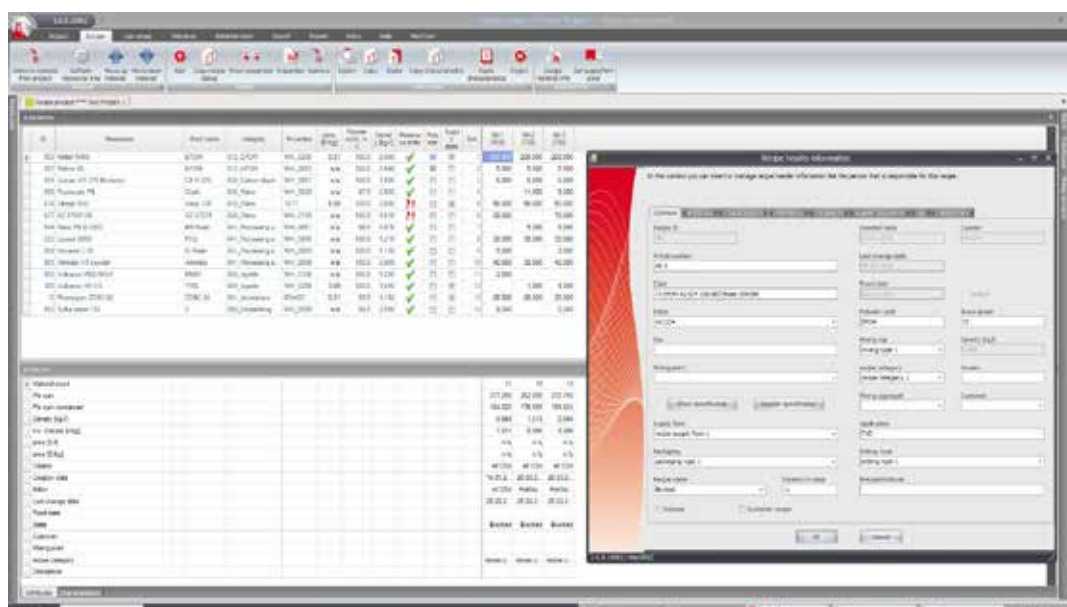
Multi-site networking

MonTech's Software system can be expanded to wherever your factory and laboratory might be located. Featuring multi-site data collection and replication for full production continuity, providing global and local business rule management and compliance. This enhanced fully digital process chain- for the first time - allows global, collaborative Research and Development as well as Quality Control in the rubber industry. Intranet or internet-based global laboratory solutions can be implemented, meeting any standard on data security and traceability.

MonTech multi-site software solutions even permit further vertical business integration by making data accessible in web-based portals for suppliers and customers, providing the highest possible consistency and transparency in all laboratory related business processes.

MonRecipe was specifically designed for formulation and compound development needs in the rubber industry. This unique software system helps you to create, cost, maintain and modify complex formulations quickly and easily with unprecedented version control, allowing you to streamline your formulation process along with speeding up and reducing costs of bringing new products to the market.

Excellence in rubber compound formulation development: MonRecipe is the ideal solution to streamline the recipe and formulation development process, adding integrated capabilities for single-stage, multi-stage and trial mixing, masterbatch management, production upscaling, management of recipe specifications and acquired laboratory data and test results. Set and enforce corporate compounding compliance with the integrated advanced multi-site collaboration capabilities, allowing you to create global recipe and compounding standards with the ability of answering local needs of recipe customizing based on raw material and mixing equipment availability.

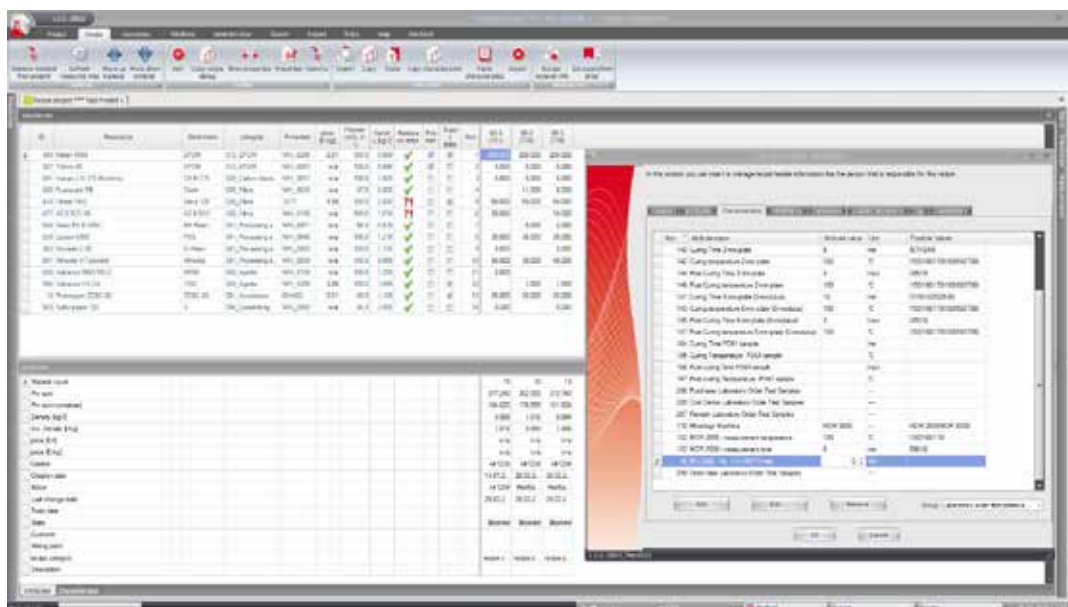


A vital part of the MonRecipe compound development system is MonMaterial for driving your ingredient, supply and raw material specification lifecycles. MonMaterial will transform your specifications collection, approvals and management - speeding it up, reducing your effort and tightening your control.

The system allows you to gather and collect any specification data that you might require when creating any possible formulation.

All raw materials can be hierarchically grouped together making them easy to retrieve while creating or editing formulations. MonMaterial is able to handle any kind of specification data from specification sheets, suppliers and supply forms, storage conditions, chemical characterizations, availability at different production sites, ROHS status, test certificates, images, web-links, barcodes, documents or any other type of attachment. Even alternative materials can be specified, providing flexible compounding alternatives in case of raw material shortages.

Software Integration included: MonRecipe and MonStat feature full application capabilities to integrate in your factory and laboratory environment, retrieving and providing data automatically to ERP, MES and Mixer control systems, creating a lean and fully digital compound development process.



MonTech Software Systems

MonControl *Analyses Software for testing instruments*



MonControl - the most easy-to-use and versatile instrument control software

MonControl represents a totally new generation of universal testing software, developed on the latest Microsoft Windows platform using state-of-the-art software technology, cutting edge calculation algorithms and a open database connectivity. MonControl operation is designed to be purely intuitive for a variety of instruments, providing your laboratory staff the same unique and user-friendly interface on every workstation and instrument in your laboratory.

This includes for example:

- Rheometers (MDR/ODR/RPA)
- Processability testers
- Mooney Viscometers
- Rebound testers
- Tensile testers
- Hardness testers
- Abrasion testers
- Balances / Scales
- Density testers



Experience flexibility in your testing

From a single workstation to work order based testing as a Laboratory Information Management System (LIMS), MonControl can be configured to reflect your laboratory setup and daily workflow needs. MonControl provides the most versatile platform for managing your laboratory and testing data, from a single machine with remote MonView data viewers for office clients, to multi-machine integrated laboratory systems.

Flexible programming, simple instrument control and fully automated data acquisition & processing make MonControl a stable software solution to count on every day. Whether static or dynamic testing, MonControl already comes with preloaded test routines for most standard industrial applications and test sequences according to international standards (ISO / ASTM / DIN), allowing even new or untrained users to start testing within minutes.

Automate processes and increase the efficiency of your operators

Customizable user input fields for sample identification along with integrated automation features such as instant Pass / Fail feedback with various trend displays and levels, tolerances, limit curves, gate calculations, batch series and label printing provide users with information exactly when they require it.

Improve the accuracy of your results

Automated input checks for plausibility of test configurations, multiple levels of security with usernames and passwords, individually defined permissions and an electronic help assistant with step-by-step procedures bring additional value to your lab operation and help you to avoid mistakes.

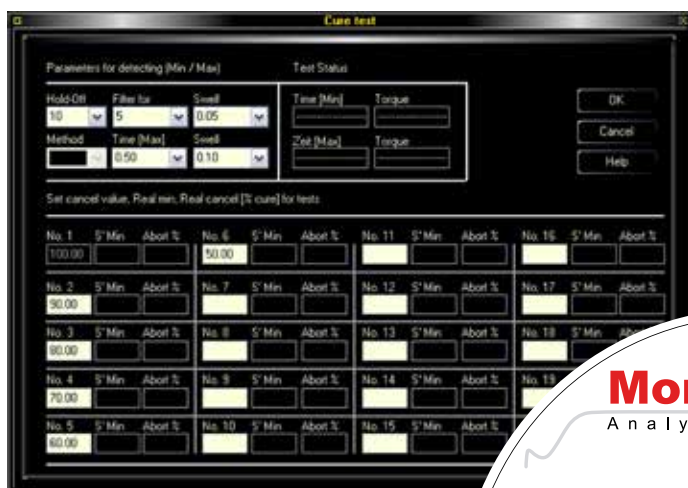
Create a professional appearance

MonControl is able to create customized reports by user selection or automatically. This covers multiple graphs, report tables, test parameters, logos, remarks, test dates and more. Reports can be printed, saved as PDF, exported or e-mailed.

MonControl speaks your language:

Integrated terminology swapping allows you to adapt MonControl to your industry by matching terms, abbreviations and symbols, parameters and units to your individual requirement, even per test configuration.

Single-click language changeover opens new possibilities for collaborative laboratory testing, especially in multi-national companies and laboratory environments.



MonControl does more than other software:

Possibilities include simple export functions, direct data transfer to Excel or integration of third party data interfaces and structures. Featuring Open Database Connectivity (ODBC), MonControl can work with any type of database system.



MonTech Software Systems

MonStat Statistical Process Control (SPC) Software

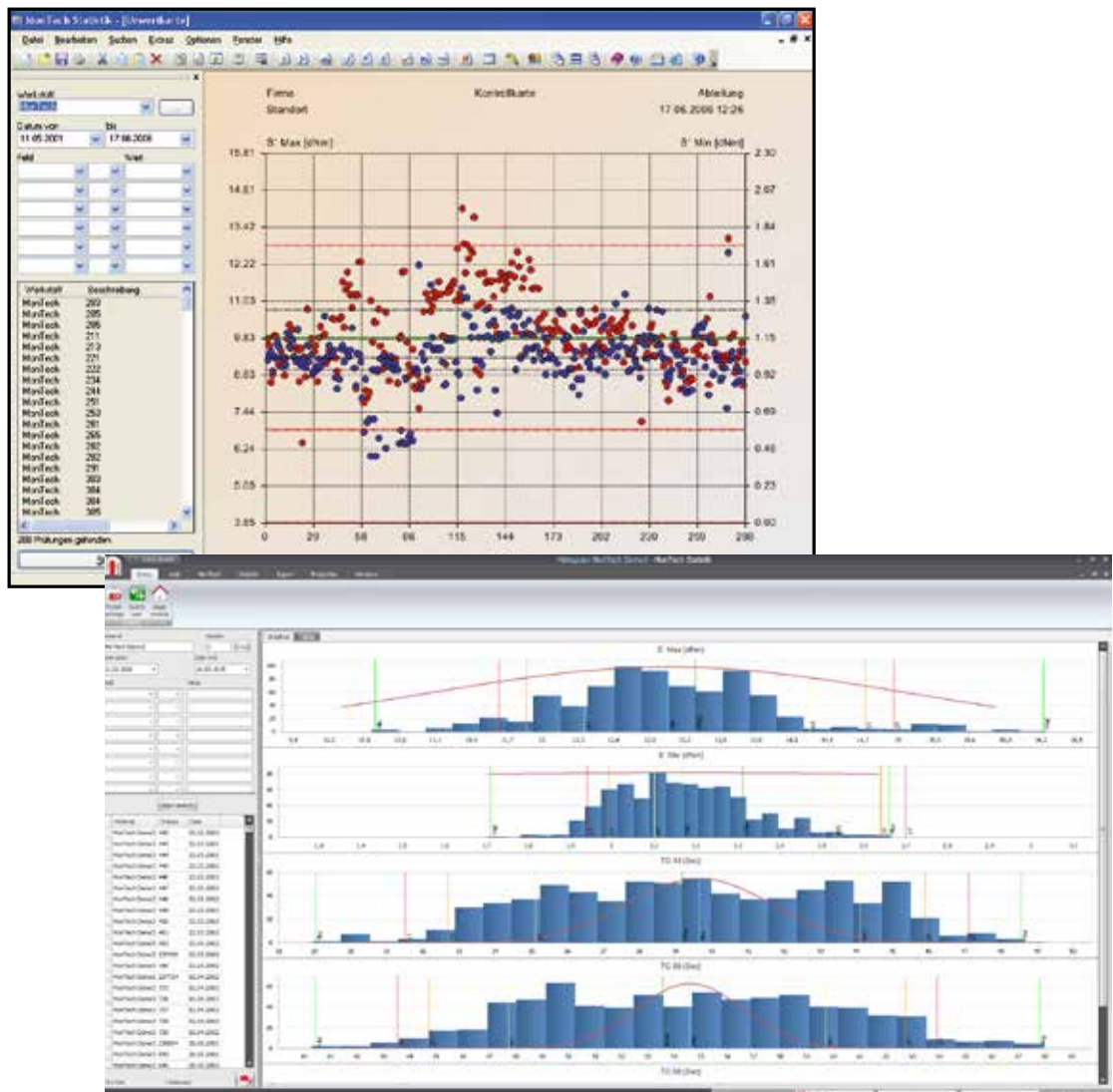


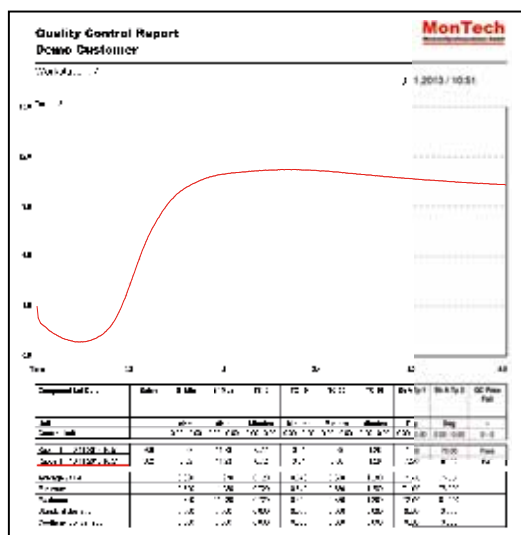
MonStat - the innovative Statistical Process Control (SPC) and reporting solution

Statistical Process Control Software helps to quickly reduce variations and costs as well as improve productivity.

MonStat is a dynamic and adaptable software for SPC featuring both realtime and historical data analysis to help you to improve product quality and understand and optimize manufacturing processes.

MonStat offers powerful analytical techniques by joining data retrieved from LIMS database systems with data collected from production machinery on the shop floor, transforming it into actionable quality information.





MonStat provides powerful data analysis capabilities, allowing everyone to quickly understand and interpret quality relevant data.

Available charts include:

- Attributes control charts
- Variables control charts
- Histograms
- Spreadsheets and data tables
- Pareto bar charts
- Multi-line, type or source charts

A key requirement of continuous improvement, Six Sigma and Lean Six Sigma programs is the ability to access timely quality-related data. MonStat's data collection features enable you to make data-driven decisions, create quality awareness by visualization of all relevant data, increase responsiveness and optimize processes for substantial cost savings and improved customer satisfaction.

Besides featuring a huge variety of standard reports, every MonTech Software system features fully customizable reporting. Of course even third party reporting modules such as CrystalReports, JasperReports, FlexiReports can be integrated.



Online Production process monitoring, trending and SPC

MonTech Software is able to collect and process data of laboratory instrumentation and machinery; and can be directly integrated into manufacturing processes for automated data acquisition on critical production machinery such as mixers, mills, batch-off units, calenders and extruders. All data is acquired and displayed in realtime and stored in a common database.

This permits online performance, consistency and reliability analysis of the related manufacturing processes. Automatic detection of process violations during mixing or other production processes, with automatic ordering corresponding laboratory testing, ensures the highest possible quality standards while minimizing testing efforts and saving critical resources and cost.

MonTech Software Systems

Application specific software systems

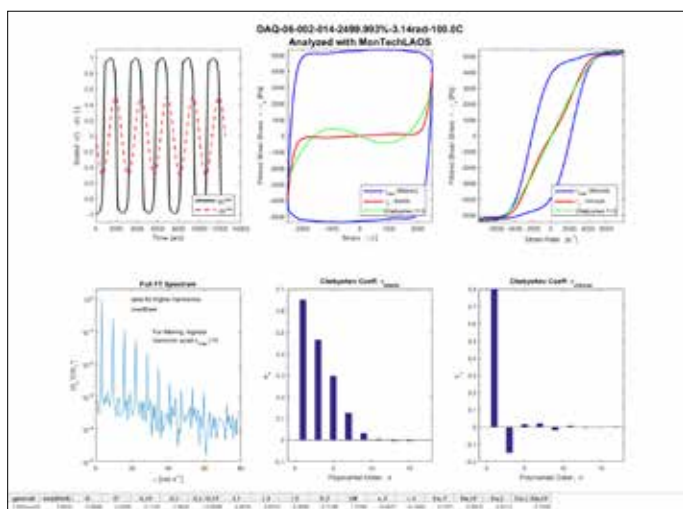
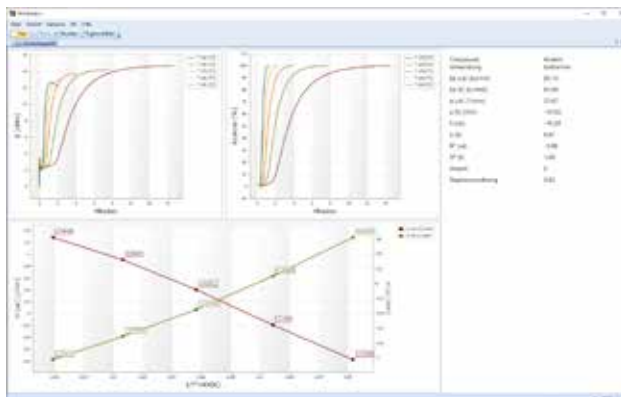
MonKinetics

The MonTech Kinetics software package allows the calculation of important material data which is required for process modelling and simulation.

This includes activation energy, incubation time, ... on isothermal and non-isothermal cure processes.

Based on acquired temperature profiles a accurate cure and conversion rate simulation can be performed.

The additional "Online cure simulation" allows the connection of dataloggers and measurement devices to calculate state of cure online directly on the shopfloor by acquiring and displaying data from production machinery.



MonLAOS

MonLAOS is a dedicated software tool for the rheological characterization under „Large Amplitude Oscillatory Shear“ (LAOS) conditions.

In combination with MonTechs' high speed data acquisition system the LAOS system is able to analyze polymers and rubber compounds in the linear and non-linear viscoelastic domain up to the 30th harmonic.

The software is based on Fourier-transformation (FT) Rheology automatically analyzing the frequency spectrum of stress vs. strain and strain-rate, calculating key datapoints and plotting Lissajous curves as well as the elastic and viscous frequency spectrum. Besides storage modulus at different harmonics and Chebyshev coefficient also the Long Chain Branching Index (LCBI) is calculated with each analyses.

MonScan

A universal formatting and conversion software for data input into MonTech or external software systems and database from simple devices such as e.g.: Hardness testers, Scales and Balances, Rebound testers, Specific gravity testers, Tack testers, ...

MonLink

Universal test specification and data management software for simple devices featuring test specification, test scheduling, test execution and reporting. Data can be stored into a common shared lab database or directly exported to host systems such as MES, ERP, SAP, ...

MonNotify

Software for instrument condition monitoring, supervision of test instrument and remote notification in case of maintenance requirements or alarms.

MonTech Projects and Consulting

MonTech partners with customers for any kind of laboratory projects:

Whether for greenfield R&D or QC laboratories, extensions or refurbishment of existing laboratories we perform holistic planning and provide a harmonised infrastructure of work areas, laboratory equipment, media and room conditions.

Furthermore, we coordinate the interfaces to the individual lots (architecture, technical building equipment), support customers to create specifications and tender documents, develop standard operating procedures and document processes and finally provide assistance during the start-up period of the lab and take care that all regulations, rules and standards are met.

PLAN

We independently plan laboratories and lab buildings

BUILD

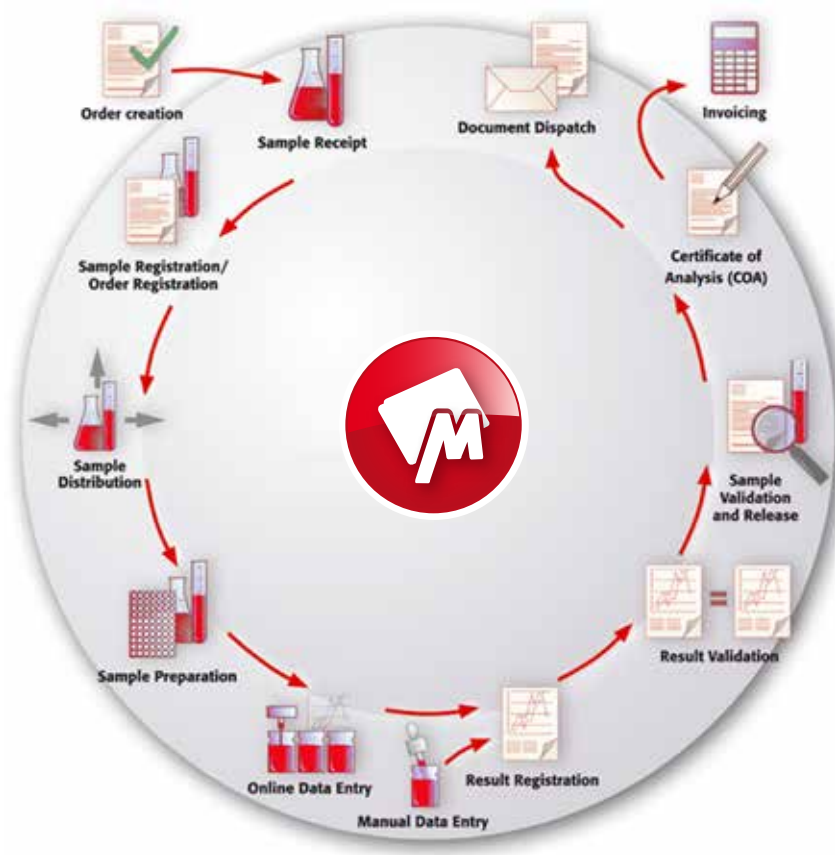
We support during the construction of buildings, lab container and mobile labs.

SUPPLY

Turnkey laboratories including lab furniture and lab equipment.

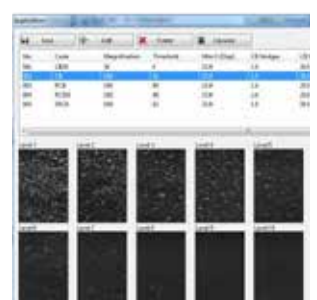
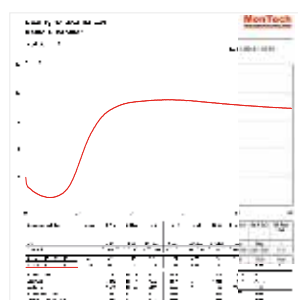
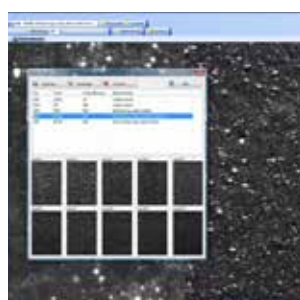
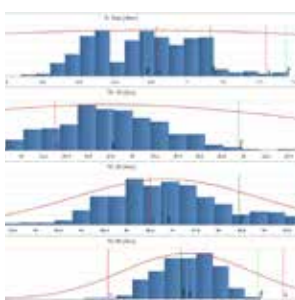
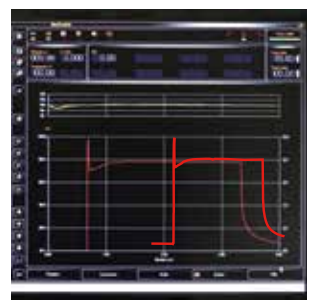
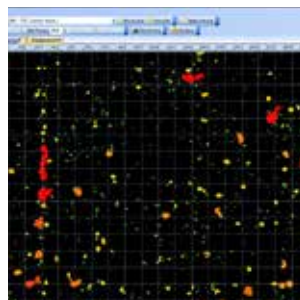
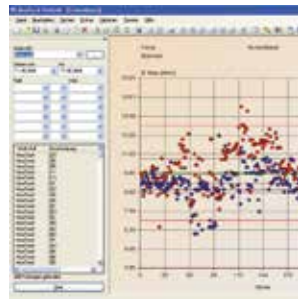
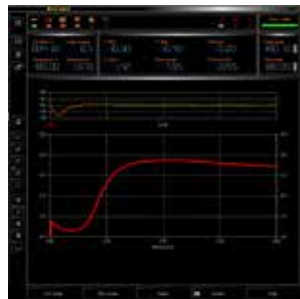
CONSULT

We develop and support your laboratory project - from start to finish



Get in touch with us today to start to discuss your laboratory project!

Software Systems



...Innovative testing solutions
made in Germany!

