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Welcome to the Intertek Automotive Update newsletter. The Update is a forum for news, happenings and information in the world of Automotive Testing and Engineering. We welcome our readers' input and participation in this forum. If you have questions to be addressed in a future issue, or article suggestions, please send inquiries to icenter@intertek.com.



**Automotive Supplier
Diversification**
*by the Michigan Aerospace
Manufacturer's Assoc. (MAMA)*

During these troubled economic times, the one characteristic we find so many manufacturers suffering from is an inability to react and adapt to the changing marketplace. Too often, manufacturers simply concentrate on downsizing in an effort to reduce overhead at every opportunity - without investing time, energy and money toward growing their companies and building their future.

The time has arrived for all manufacturers, regardless of industry, location and size, to diversify their client list to smooth out the typical boom/bust cycles that can be so stressful. The manufacturer of the future will be diversified in a number of industries and also be well-diversified within each of those industries.

In Michigan, MAMA has organized efforts to assist manufacturers in their diversification into the aerospace industry. We begin the process by helping them attain AS 9100 certification. To do this, we have: experienced consultants to work with manufacturer's quality teams to teach them the intricacies of AS 9100; grants to help defray the costs; and relationships with registrars such as Intertek to issue AS 9100 certificates to qualified firms.

Next, MAMA offers almost 20 training courses in order to help train them on the processes and culture of the aerospace industry. Finally, we work to introduce them to the aerospace OEM's (Primes). This has proven to be quite successful and repeatable.

This type of model can be employed in other communities with

Hybrid Battery Testing Capabilities

With the advent of hybrid batteries in the auto industry, Intertek has expanded our testing capabilities to serve suppliers of this new technology. Examples of hybrid battery equipment Intertek has tested includes battery packs, pack controllers, plug-in battery chargers, manual service disconnect (removable fuse) and wire harnesses. Services include environmental simulation, electrical performance, EMC, mechanical endurance and fire endurance which are conducted at our labs in the U.S., China and Sweden. Please contact icenter@intertek.com for more information or for a quote.

New Whitepaper:

similar success. It helps to have government involvement as well as a motivated manufacturing base. That being said, there are numerous other resources available to manufacturers. Intertek, for example, works with manufacturers around the world to educate them on [AS 9100](#). The [Aerospace Industries Association](#) is another valuable source of information about the industry.

Manufacturers face an uphill struggle over the next few years. The successful will emerge from strong diversification efforts and focused leadership. These companies will engage with new industries with an understanding that they have much to learn and be excited at the opportunity to work with new materials and new processes. It can be done. It is being done all over the country. You can do it too.

Guest Author: Craig Wolff is Vice President and Co-founder of the Michigan Aerospace Manufacturers Association based in Grand Rapids, Michigan (www.michman.org).

Lubricant Oil Trends

Recent technological developments in the lubricant industry have resulted in a widespread quality improvement in both base oils and additives leading to superior finished lubricants. As the mainstream markets move increasingly towards Group II, III and synthetic-base stocks, attention is now being focused on whether there is a place for higher quality Group III base stocks derived from GTL and other advanced processes. The upgrading of base oils is being brought about by more demanding requirements from original equipment manufacturers (OEMs), by government regulations, and through consumer awareness, environmental concerns, decreasing supply of high-quality lubricant-bearing crudes, and expanding markets worldwide, particularly in the so-called BRIC markets, e.g. China.

Present-day lubricant demand is for maximum oxidation stability, superior low-temperature performance, low volatility, and improved additive response, which are difficult to achieve through conventional processing. Conventional solvent lubricant refining produces base oils with a viscosity index (VI) of 100 with a fair amount of sulphur and aromatics, i.e., Group I base oils only. The current requirements of high-performance base oils can conveniently be met through the hydroprocessing route. Depending upon the severity level, hydroprocessing is able to produce base oils of VI 95-110, in addition to low sulphur and high saturates content (Group II and Group III) by transforming the undesirable molecules into more useful structures.

As advancements have been made in lubricant oil technology, the requirements for analytical testing have become increasingly important in order to provide reassurance that these new products are fit for purpose. Intertek offers such testing services from various laboratories in Europe and from our dedicated automotive laboratories in the Americas and China, please contact testingservices@intertek.com for more information.

Surviving Today's Automotive Industry



Many traditional automotive companies are lacking one key ingredient it will take to survive in this struggling industry. What can companies do to speed time-to-market, shorten testing turnaround and improve product quality and reliability... all while reducing costs? Do you have what it takes? Learn what's needed by downloading Intertek's free whitepaper, "**Do You Have What it Takes to Cut Costs, Reduce Time-To-Market & Increase Product Reliability?**," which will illustrate proven methods used to:

- Reduce overall test time
- Lower costs
- Ensure a complete validation plan

This guide will introduce you to Intertek's Best Practice methodologies on determining which Validation tests are required, which ones may be redundant, and how you can reduce overall validation time and cost by 50% or more. [Download](#) your free copy today.

Weight Reduction: Optimized Polymers with the Right Flow Properties

The development within the automotive industry asking for material weight reduction and downsizing demands the development of new lighter materials with the same quality as existing materials. One example is a thinner wall thickness but the same mechanical performance.

During the development of these new products, the rheological behavior during the injection molding process is of significant importance. In addition to this, good flow properties at lower temperature are demanded more often. Next to the international standardized rheological techniques like Melt Flow Index (ISO1133) and flow curve by capillary rheometry (DIN ISO 11443), spiral flow evaluation gives practical rheological information.

Intertek has extended expertise and modern equipment available for the spiral flow evaluation.



Spiral flow evaluation takes place with an injection molding machine and a (non isothermal) mold. Intertek has several molds available starting with a wall thicknesses of 0.5mm up to 3mm, the spiral length of all molds is about 2500 mm. The clamp force

of the injection molding machine is 320 tons with a cylinder diameter of 52 mm. This machine can also handle fiber reinforced materials.

Evaluation can be done according customer specific standards. For more info contact +31 46 47 62713 or info.polychemlab@intertek.com

Increased Impact Lab Capabilities

New instrumented impact tester increases capabilities in the Intertek Plastics Technology Laboratories impact lab to include speeds up to 20 meters per second (45 mph) and impact in an elevated or subambient temperature chamber. High Speed Puncture Multiaxial Impact is used to generate automotive polymer material data including toughness, load-deflection curves and total energy absorption of impact events. Learn more on our [website](#).

Asia Auto Lab Working with SAIC & Daimler

Intertek Automotive Services Shanghai (IAS) is partnering with SAIC for Validation engineering support. Five Intertek validation engineers will be placed at SAIC to develop test plans & reports, perform supplier visits and coordinate validation details.

Additionally, the German JV in China, Fujian Daimler, has signed a contract with IAS for materials & reliability testing. In the future, airbag deployment testing will also be covered in the contract, as the lab is planning on adding this capability. For more information, contact autoinfo.sh@intertek.com.

Intertek Exhibiting at SAE Meeting

Intertek will be hosting a booth at the SAE International Powertrains, Fuels, and Lubricants Meeting in Florence, Italy from June 15-17. This event brings together leading engineers, scientists and suppliers for a global discussion on the latest advancements and technologies in the interactions of engine designs, fuel blends and alternatives, combustion techniques, lubricants and emission controls. For more information, click [here](#).

Revised TS Rules

The International Automotive Task Force (IATF) has released revised Rules for achieving IATF Recognition, 3rd Edition for ISO/TS 16949:2002 - October 1, 2008. The new Rules 3rd Edition replace the 2nd Edition; all related Rules Sanctioned Interpretations (SI) and Rules

Frequently Asked Questions (FAQ) issued prior are now obsolete.

A list of some of the changes that may affect certified organizations is available on Intertek's Systems Certification [website](#).

About Intertek

Intertek Group plc (FTSE: ITRK) is a leading international provider of quality and safety services to a wide range of global and local industries. Partnership with Intertek brings increased value to customers' products and processes, ultimately supporting their success in the global market place. Intertek has the experience, expertise, resources and global reach to support its customers through their network of over 23,000 people in more than 100 countries around the world. www.intertek.com

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