

Stan Howard
Yonkers, New York


40 Years
SCHOTT
in the USA

Customer-Oriented Research

With its expertise in optical, ophthalmic and laser glasses, SCHOTT in Duryea, nestled in the hills of northeast Pennsylvania, is the second largest "full service" Research and Development site in the SCHOTT Group, after the Otto SCHOTT Research Center in Mainz.

Test meltings serve to determine the best composition of the raw materials for the respective application.



SCHOTT/Dave Fonda

► Before SCHOTT widened the scope of its research activities in the United States, the R&D Center in Duryea exclusively served the products manufactured at the North American production facility of SCHOTT Glass Technologies. "Over the years, we've developed a highly competent staff with expertise in materials, technology and technical services," says Dr. Alex Marker, Director of the R&D Center and its 23 scientists, laboratory and process engineers, technicians and administrative personnel. Their expertise ranges from ultraviolet fiber optics to S-1005 high-index, low-density ophthalmic

glass, neodymium-doped fluorophosphate laser glass and platinum-free neodymium-doped phosphate laser glass. The team has already amassed four IR 100 Awards, a prize that recognizes the 100 best industrial research companies in the United States every year.

"We are now a part of SCHOTT's worldwide R&D organization and, as such, a resource to any strategic business unit in the company," explains Dr. Marker. "It has been quite a change for our staff, but it has also been exciting to have our horizons expanded,"

says Dr. Marker, a physicist and a 23-year veteran of the SCHOTT Group, nineteen of which have been spent as Director of R&D in Duryea.

Located in the Appalachian Mountain region, the Duryea site is very diverse with some 400 employees in manufacturing, sales and marketing, administration and research and development. Alex Marker and his co-workers in Duryea report to the Corporate Function Research and Development in Mainz, Germany, which has worldwide R&D responsibility.

With the introduction of the Vision 2010, SCHOTT has made a philosophical change. "Our purpose is now focused on market- and customer-driven solutions," explains Alex Marker. "In keeping with that vision, our expertise is now available to all business units within the Group. However, this does not mean that we will abandon the core businesses of SCHOTT Glass Technologies."

Technical Services group ensures product quality

The Technical Services group is one of the three areas of expertise of the R&D center in Duryea. This group provides optical property, physical property and analytical measurements for production control, product certification, customer service and sales support.

"With our years of experience in these technical areas, it is a natural progression for us to use our expertise to service other companies within the SCHOTT organization in North America," explains Beth Gober-Mangan, an analytical chemist who is responsible for chemical and defect analyses. "Now we see ourselves as facilitators to provide our customers with all that SCHOTT has to offer," she notes. "We are very excited about sharing our experience beyond Duryea."

Extensive melting expertise

The site in Duryea also assists SCHOTT businesses by using its extensive expertise in glass technology, for example in the test melting of glass and glass ceramics and the low-temperature inorganic bonding of materials.

"We work with both internal and external customers," says Dr. Mark Davis, who holds a doctorate degree in geology and is now involved in the development of glass ceramic materials and further technical innovation for R&D test melting. "We have a large suite of regular customers as well as brand new businesses. And we also work well with SCHOTT's central R&D in Mainz."

A wide range of know-how in materials

With their experience in pure technology and in technology-related service, the U.S. researchers in Duryea also provide materials



SCHOTT/Dave Fonda

Dr. Alex Marker, Director of SCHOTT's R&D Center in Duryea, and analytical chemist Beth Gober-Mangan assess the chemical analysis of glass samples.

development to both internal and external customers. This includes, for example, the development of multi-component glass and glass ceramics for "active" and "passive" applications.

"We develop laser glasses and advanced processes for manufacturing these glasses and have a long history in creating colored glasses for ophthalmic, filter and color-enhancement applications," explains Mark Davis. "We also develop fiber optic core glasses and transfer the proprietary compositions of our customers to full scale production. In addition, we advise our customers in the case of specific applications and conduct problem solving based on our know-how and materials science."

"It is very gratifying to us to be recognized for our expertise," says Alex Marker. "We know we can make a difference and prove this every day as we discover new things about glass and transform this knowledge into tangible products and services for our customers." ◀



SCHOTT/Dave Fonda

The Technical Services group characterizes physical properties of glasses and conducts analytical measurements.



SCHOTT/Dave Fonda

The testing device shown above can determine the exact optical properties of a prisma.