Yea or Nay on Optical Fabrication, Coating Standards

Now that the final voting on the acceptance of ISO 10110 and 9211 as international standards is complete, it's time to address the impact on the optical fabrication and coating communities. I do not yet know the outcome of the voting, but every indication is that both standards will be adopted in their entirety after some minor editorial revisions.

ISO 10110 deals with how to represent optical elements and their significant features on mechanical drawings. These features include mechanical tolerances, surface figure and finish, and centering requirements, among others. ISO 9211 covers how to represent optical coatings on drawings or specifications, and includes the coating function, spectral response, and durability.

Assuming the countries that have voted accept these standards, how will this affect day-to-day life in the optics industry? These standards are voluntary, and there is presently no requirement that they be used. If a company asks that a lens system be designed, it can certainly request that potential vendors supply drawings in the ISO format. At this point, a vendor would have to accept these terms, but it is strictly on a company-to-company basis.

As time goes on, more and more companies will likely ask for drawings made to ISO 10110, and then, of course, optical fabrication houses will have to make components from these drawings. Inspections will also have to be done to the new drawings.

If these standards are adopted internationally, they do not automatically become U.S. national standards. In many EC countries, the international standards will be adopted almost immediately. Europe wants to behave as a single market, which can only work if all the countries are using the same standards.

If the U.S. wants to adopt ISO 10110 and 9211 as national standards, then the U.S. National Committee covering this technical area will have to vote for adoption. The committee responsible is ANSI/NAPM IT.11—Imaging Technology, Optics, and Optical Instruments.

Another possible course of action is that if the Department of Defense were convinced that the new drawing and coating standards were superior and more up-to-date than the current military standards for optics, it would adopt these new ISO standards. If such an adoption were made, the standards would then become mandatory for optics supplied to the government. However, until the the government takes some action to adopt the standards, they will remain voluntary, even if adopted as U.S. national standards.

IF THESE STANDARDS ARE ADOPTED INTERNATIONALLY, THEY DO NOT AUTOMATICALLY BECOME U.S. NATIONAL STANDARDS.

Copies of the voting drafts of both ISO 10110 and 9211 are available for a fee from Angella Dair at NAPM. She may be reached by phone at 914/698-7603 or fax at 914/698-7609. After reviewing these standards, please comment on their suitability for adoption as U.S. national standards to John Gignac at NAPM, 550 Mamoroneck Rd., Harrison, N.Y. 10528 (same phone and fax numbers as above).

—Robert E. Parks