Introduction

Mechanical and physical properties/performance of brittle bodies (e.g., advanced ceramics and glasses) can be difficult to measure correctly unless the proper techniques are used. For over three decades, ASTM Committee C28 on Advanced Ceramics, has developed numerous full-consensus standards (e.g., test methods, practices, guides, terminology) to measure various properties and performance of monolithic and composite ceramics and coatings that, in some cases, may be applicable to glasses. These standards give the “low-down” for determining many mechanical, physical, and thermal properties and performance thereby providing accurate, reliable, repeatable and complete data. Involvement as ASTM Committee C28 includes users, producers, researchers, designers, academicians, etc. who write, continually update, and validate through round robin test programmes, nearly 50 standards as the Committee enters the fourth decade since its inception in 1986. Included in this poster is a thumbnail of the ASTM Committee C28 standards and how to obtain them either as i) individual copies (physical or digital) with full details or ii) a complete collection in one volume. A listing of other ASTM committees of interest is included. In addition, some examples of the tangible benefits of standards for advanced ceramics demonstrate their practical application.

For further information

Committee C28 and Standards for Ceramics


ASTM C28 Advanced Ceramic Standards by Subject- http://www.astm.org/COMMIT/C28_SoldBySubject.docx


Acknowledgments

We thank the more than 90 industry, government, and academic committee members from many countries (~25% non-USA) who have volunteered many hours to develop these standards via work in six technical and four administrative subcommittees.

Design Codes


References:

Classifications C1835 and C1836
Test Methods C1773 and C1839

CMH-17, Vol 5, Part C

References and summaries:

Test Methods C1275, C1276
Test Methods C1359
Test Methods C1292 and C1425
Test Method C1358
Test Method C1468

Standardization:

Tangible Benefits

Comparisons Among Authors and Helping to Interpret Data

The Probem: Transparent Armor Ceramics as Spacecraft Windows*