

DIN EN ISO 18754:2022-06 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of density and apparent porosity (ISO 18754:2020)

Contents		Page
European foreword		3
Foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Method by liquid displacement (Method A)	6
4.1	Principle	6
4.2	Apparatus	6
4.3	Test pieces	7
4.3.1	General requirements	7
4.3.2	Specific requirements for ceramic matrix composites	7
4.4	Procedure	8
4.4.1	Determination of the mass of the dried test piece	8
4.4.2	Impregnation of the test piece with the immersion liquid	8
4.4.3	Determination of the apparent mass of the test piece	8
4.4.4	Determination of the mass of the soaked test piece	9
4.4.5	Determination of the density of the immersion liquid	9
4.5	Accuracy of mass measurement	9
4.6	Expression of results	9
4.6.1	Apparent solid density	9
4.6.2	Bulk density	10
4.6.3	Apparent porosity	10
5	Method by measurement of dimensions and mass (Method B)	10
5.1	Principle	10
5.2	Apparatus	11
5.3	Test pieces	11
5.3.1	General requirements	11
5.3.2	Specific requirements for ceramic matrix composites	12
5.4	Procedure	12
5.4.1	Determination of the mass of the dried test pieces	12
5.4.2	Determination of the dimensions of the dried test pieces	12
5.5	Expression of results	12
6	Test report	13
Bibliography		14