

DIN EN ISO 18675:2023-04 (E)

Dentistry - Machinable ceramic blanks (ISO 18675:202 2)

Contents		Page
European foreword		3
Foreword		4
Introduction		5
1 Scope		6
2 Normative references		6
3 Terms and definitions		6
3.1 Materials		6
3.2 Properties		7
3.3 Types of blanks		7
3.4 Test piece		7
4 Homogeneity of partially sintered zirconia blanks		8
4.1 Classification		8
4.2 Determination of the shrinkage factor, <i>d</i>		8
4.2.1 Blanks characterized by one shrinkage factor for all three dimensions in space		8
4.2.2 Blanks characterized by two or three shrinkage factors		10
4.3 Recommendations		11
4.4 Test report		11
5 Warpage		12
5.1 Test method		12
5.1.1 Large zirconia blanks		12
5.1.2 Medium- and small-size zirconia blanks		13
5.2 Recommendations		13
5.3 Test report		14
6 Dimensional stability post machining crystallization of glass ceramics		14
6.1 General		14
6.2 Test method		14
6.2.1 Sample preparation		14
6.2.2 Characterization before heat treatment		15
6.2.3 Heat treatment		16
6.2.4 Characterization after heat treatment		16
6.3 Test report		17
7 Machining damage		18
7.1 General		18
7.2 Test methods		18
7.3 Test report		18
8 Machinability using the merlon fracture test		19
8.1 General		19
8.2 Test method		20
8.2.1 Dimensions of test geometries		20
8.2.2 Machining		21
8.2.3 Characterization of milled specimen		21
8.3 Recommendations		22
8.4 Test report		22
Bibliography		24