

ISO 9693:2019-10 (E)

Dentistry - Compatibility testing for metal-ceramic and ceramic-ceramic systems

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Requirements	2
4.1	Biocompatibility	2
4.2	Physical properties	2
4.2.1	General	2
4.2.2	Thermal expansion	2
4.2.3	De-bonding/crack-initiation test	2
4.2.4	Thermal shock resistance	3
5	Sampling	3
5.1	Metallic substructure material	3
5.2	Ceramic substructure material	3
5.3	Veneering ceramic	3
6	Test methods	3
6.1	Linear thermal expansion	3
6.1.1	Metallic materials	3
6.1.2	Ceramic materials	3
6.2	Glass transition temperature	3
6.3	Young's modulus	3
6.4	De-bonding/crack-initiation test	3
6.4.1	Apparatus	3
6.4.2	Preparation of test specimens	4
6.4.3	Determination of fracture force	4
6.4.4	Test report	6
6.5	Thermal shock testing	6
6.5.1	General	6
6.5.2	Preparation of test specimen	7
6.5.3	Thermocycling test with fixed temperature interval	7
6.5.4	Thermocycling test with increasing temperature interval	7
7	Test report	8
Bibliography		10