

ISO 10477:2026-09 (E)

Dentistry - Polymer-based crown and veneering materials

Contents

Page

Foreword.....	v
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Classification.....	3
5 Requirements.....	3
5.1 General.....	3
5.2 Depth of cure.....	4
5.2.1 General.....	4
5.2.2 Depth of cure (only type 2 class 2 materials).....	4
5.3 Surface finish.....	4
5.4 Flexural strength.....	4
5.5 Bond strength.....	5
5.5.1 Special bonding system without macromechanical retention.....	5
5.5.2 Values higher than 5 MPa.....	5
5.6 Water sorption.....	5
5.7 Solubility.....	5
5.8 Shade consistency.....	5
5.9 Colour stability.....	6
6 Sampling.....	6
6.1 For all tests.....	6
6.2 For test of shade consistency.....	6
6.3 For test of colour stability.....	6
7 Measurement and test methods.....	6
7.1 General.....	6
7.1.1 Ambient test conditions.....	6
7.1.2 Water.....	6
7.1.3 Preparation of test specimens.....	6
7.2 Visual inspection.....	7
7.3 Depth of cure (only for type 2, class 2 if not opaque resin).....	7
7.3.1 Apparatus.....	7
7.3.2 Materials.....	8
7.3.3 Procedure and specimen preparation.....	9
7.3.4 Expression of results.....	9
7.4 Surface finish.....	9
7.4.1 Apparatus (for type 2 class 3 and type 4 materials).....	9
7.4.2 Materials.....	9
7.4.3 Specimen preparation.....	9
7.4.4 Surface polishing.....	10
7.5 Flexural strength.....	10
7.5.1 Apparatus.....	10
7.5.2 Materials.....	11
7.5.3 Preparation of test specimens.....	11
7.5.4 Procedure.....	12
7.5.5 Expression of results.....	13
7.6 Bond strength (only type 1, type 2 classes 1 and 2 and type 3 materials).....	13
7.6.1 Apparatus.....	13

7.6.2	Materials	14
7.6.3	Preparation of test specimens	15
7.6.4	Procedure	15
7.6.5	Expression of results	15
7.7	Water sorption and solubility	16
7.7.1	Apparatus	16
7.7.2	Materials	16
7.7.3	Preparation of test specimen	17
7.7.4	Procedure	17
7.7.5	Expression of results	18
7.8	Shade consistency and colour stability	19
7.8.1	General	19
7.8.2	Apparatus	19
7.8.3	Materials	19
7.8.4	Preparation of test specimens	20
7.8.5	Procedure	20
7.8.6	Colour comparison	21
7.8.7	Expression of results for shade consistency	21
7.8.8	Expression of results for colour stability	21
8	Packaging and labelling	21
8.1	Packaging	21
8.2	Labelling and instructions for use	21
	Bibliography	25