

ISO 5139:2023-05 (E)

Dentistry - Polymer-based composite machinable blanks

| Contents | | Page |
|-----------------------|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Characteristics | 2 |
| 4.1 | Requirement | 2 |
| 4.2 | Recommendations | 2 |
| 4.2.1 | Machining damage | 2 |
| 4.2.2 | Machinability | 2 |
| 4.2.3 | Bonding properties between blank and holding jig | 2 |
| 5 | Sampling | 2 |
| 6 | Test methods | 2 |
| 6.1 | General | 2 |
| 6.2 | Size of blanks | 2 |
| 6.2.1 | Apparatus | 2 |
| 6.2.2 | Procedure | 2 |
| 6.3 | Machining damage | 3 |
| 6.3.1 | General | 3 |
| 6.3.2 | Apparatus | 3 |
| 6.3.3 | Water | 3 |
| 6.3.4 | Preparation of test specimens | 3 |
| 6.3.5 | Procedure | 4 |
| 6.3.6 | Expression of results | 4 |
| 7 | Packaging and labelling | 5 |
| 7.1 | Packaging | 5 |
| 7.2 | Labelling | 5 |
| 7.2.1 | General | 5 |
| 7.2.2 | Labelling of outer pack | 6 |
| 7.2.3 | Labelling of polymer-based composite machinable blank | 6 |
| 8 | Instructions for use | 6 |
| Annex A (informative) | Preparation method of control specimen for flexural strength | 8 |
| Annex B (informative) | Milling design of test specimen for machining damage | 13 |
| Annex C (informative) | Test method to determine the bonding properties between blank and holding jig | 14 |
| Bibliography | | 18 |