ANSI/ADA Specification No. 71
Approved by ANSI: May 2001

American National Standard/
American Dental Association
Specification No. 71

Root Canal Filling Condensers (Pluggers and Spreaders)

Modified adoption of ISO 3630-3: 1994, Dental root-canal instruments — Part 3: Condensers, pluggers and spreaders

American Dental Association
Council on Scientific Affairs 2001

AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION SPECIFICATION NO. 71 FOR ROOT CANAL FILLING CONDENSERS (PLUGGERS AND SPREADERS)

The Council on Scientific of the American Dental Association has approved revised American Dental Association Specification No. 71 for Root Canal Filling Condensers (Pluggers and Spreaders). This and other specifications for dental materials, instruments and equipment are being formulated by working groups of the ADA Standards Committee on Dental Products (formerly Accredited Standards Committee MD156 for Dental Materials, Instruments and Equipment). The Committee has representation from all interests in the United States in the standardization of materials, instruments and equipment in dentistry. The Council has adopted the specifications, showing professional recognition of their usefulness in dentistry, and has forwarded them to the American National Standards Institute with a recommendation that the specifications be approved as American National Standards. The American National Standards Institute granted approval of Revised ADA Specification No. 71 as an American National Standard on May 11, 2000. This standard becomes effective May 11, 2001.

The Council thanks the working group members and the organizations with which they were affiliated at the time the specification was developed: Mr. Frank Lentine, (Chairman), Lentine Enterprises, Ltd., Taylor, MI; Mr. Preston Blann, Defense Personnel Support Center, Philadelphia, PA; Dr. T. Chang, Block Drug Co., Jersey City, NJ; Mr. Richard Geary, American Dental Association, Chicago, IL; Mr. Max Gibbs, Ormco Corporation, Leander, TX; Dr. Gerald Glickman, University of Texas, Houston, TX; Mr. Lonnie Graybill, Union Broach, York, PA; Dr. John Ingle, San Diego, CA; Mr. Mark Inmon, Tulsa Dentsply Endodontics, Tulsa, OK; Mr. Max Lenz, Endodent Inc., Monrovia, CA; Dr. Neill H. Luebke (Secretary), Brookfield, WI; Dr. Herbert Schilder, Boston University Medical Center, Boston, MA; Dr. Brahma Sharma, Biotrol, Louisville, CO; Mr. Michael Sobotka, Charles B. Schwed, Kew Gardens, NY; Dr. Lars Spangberg, University of Connecticut, Farmington, CT; Dr. Timothy Svec, University of Texas, Houston, TX; Dr. Harmeet Walia University of Florida, Gainesville, FL. The Chairman of ADA Subcommittee 1 on Restorative and Orthodontic Materials is Dr. John Mitchem, University of Oregon, Portland, OR.

AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION PECIFICATION NO. 71 FOR ROOT CANAL FILLING CONDENSERS (PLUGGERS AND SPREADERS)

FOREWORD

[This foreword does not form a part of ANSI/ADA Specification No. 71 for Root Canal Filling Condensers (Pluggers and Spreaders)].

Revision of Specification No. 71-1995 includes consideration of differences with ISO 3630-3, 1994-03-01, Dental root-canal instruments - Part 3: Condensers, pluggers and spreaders. The ASC MD156 Working Group 4.27 incorporated a number of editorial changes based on commonly accepted terms and document updates.

Listed below is a summary of the technical changes or additions in the revised document.

1.2.2 Classes

Removed to be in agreement with ISO 3630-3. Previous reference to “Classes” has been replaced with separate sections for standard size and taper size instruments.

3. Definitions

Added definitions for condenser, plugger, and spreader in agreement with ISO 3630-3, except ANSI/ADA document uses “compact” instead of “compress” which the working group believes to be technically correct in describing the action of the instrument. Definitions for Standard size condenser and Taper size condenser were added which are not contained in ISO 3630-3.

4.1 Material

Requirement for material was added in agreement with ISO 3630-3. The working group decided to differ with ISO 3630-3 that when “shank” is used as an alternative for “handle” in the ISO document, “shank” is not included in the ANS/ADA document.

Table 1

Tip length values revised in agreement with ISO 3630-3.

Table 3

The angle range for “±1°” was changed from “up to 10° or less” to “less than 11°”. The working group will propose that this change be included in the next revision of ISO 3630-3 as this addresses the angle range between 10 and 11 degrees.

Table 4

Table 4, Color Coding was deleted and the color code information is now included with Table 1 in agreement with ISO 3630-3.

Figure 3

Figure 3, Handle Pull Test Fixture, continues to be included in this specification although it has been omitted in the current ISO edition. The working group believes that its inclusion assists the tester in avoiding potential confusion in the test setup.

The provisions of this new document are in agreement with 3630, Part 3,except and noted above and except for the method to identify the location for the diameter measurement points. The ISO document specifies d_1, d_2, and d_3 for diameters while the ANS/ADA Specification defines D_0 , D_3, and D_{16} for the previous corresponding diameters. These subscripts represent the locations along the taper where the diameters are located and measured. The working group continues to support this designation in order to emphasize the importance of specific dimension locations for tapered configurations.

AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION PECIFICATION NO. 71 FOR ROOT CANAL FILLING CONDENSERS (PLUGGERS AND SPREADERS)

1 SCOPE AND CLASSIFICATION

1.1 Scope

This specification is for root canal instruments for finger or hand - used to compact root canal filling materials.

1.2 Type

The instruments covered by this specification shall be of the following types and classes.

1.2.1 Type

I. Pluggers
II. Spreaders

2 APPLICABLE SPECIFICATIONS AND REGULATIONS

The following documents form a part of this specification.

2.1 Specifications

ANSI/ADA Specification No. 28 for Root Canal Files and Reamers, Type K.
ANSI/ADA Specification No. 78 for Endodontic Obturating Cones.
ANSI Metric Practice, Z210.1-1976.
ISO 3630, Dental Root Canal Instruments.
(Copies of ANSI specifications may be obtained from the American National Standards Institute, 25 West 42nd Street, New York, New York 10036. Copies of ANSI/ADA Specifications and ISO Standards may be obtained from the Dept. of Standards Administration, American Dental Association, 211 E. Chicago Avenue, Chicago, IL 60611).

2.2 Regulations

Quality Systems Requirements (QSR) issued by the Food and Drug Administration.

3 DEFINITIONS

For the purposes of this Specification, the following definitions apply.

3.1 Root-canal filling condenser

Hand instrument, the working part of which is cylindrical or tapered, and is circular in cross-section. It is designed to compact the filling material in a root canal in the axial and/or lateral direction. Condensers are commonly used as pluggers or spreaders.

3.2 Root-canal filling plugger

Hand instrument, the working part of which is cylindrical or tapered, and is circular in cross-section and has a flat tip end. It is designed to compact filling materials in a root canal mainly in the axial direction.

3.3 Root-canal filling spreader

Hand instrument the working part of which is tapered, circular in cross- section and has a pointed tip