



American National Standard/American Dental Association
Specification No. 78

Dental Obturating Cones

Modified adoption of ISO 6877-1:1995, *Dental Obturating Points*.

ADA American
Dental
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Council on
Scientific Affairs

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AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION SPECIFICATION NO. 78 FOR DENTAL OBTURATING CONES

The Council on Scientific Affairs of the American Dental Association has approved American Dental Association Specification No. 78 for Dental Obturating Cones. 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 ADA Specification No. 78 as an American National Standard on March 27, 2006.

The Council thanks the working group members and the organizations with which they were affiliated at the time the specification was revised: Mr. Frank Lentine (Chairman), Lentine Enterprises, Ltd., Taylor, MI; Neill H. Luebke (Secretary) Brookfield, WI; Dr. T. Chang, Block Drug Co., Jersey City, NJ; Dr. David Clement, Oklahoma University, Oklahoma City, OK; Gerald Glickman, Baylor College of Dentistry, Dallas, TX; Lonnie Graybill, Miltex International, York, PA; Mr. Jim Greenburg, Dentsply Endodontics, Tulsa, OK; Dr. Jeff Hutter, Boston University Medical Center, Boston, MA; Dr. John Ingle, San Diego, CA; Mr. Nick Lenz, Endodent Inc., Monrovia, CA; Dr. Spiro Megremis, American Dental Association, Chicago, IL; Dr. Brahma Sharma, Biotrol International, Louisville, CO; Mr. Michael Sobotka, Charles B. Schwed Co., Kew Gardens, NY; Lars Spangberg, University of Connecticut, Farmington, CT; and Dr. Timothy Svec, University of Texas, Houston, TX.

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FOREWORD

(This Foreword does not form a part of ANSI/ADA Specification No. 78 for Endodontic Obturating Cones).

ANSI/ADA Specification No. 78 is a modified adoption of ISO 6877-1:1995 Dental obturating points. The major change found with this revision is the elimination of Figure 1. The figure is a graphical representation of the relation between size designation and taper for the Taper size cones currently commercially available. The working group decided that the Taper size cones have become readily recognized by the dental profession since their introduction. As the graph was intended to introduce the concept of various tapers, we believe that it has become unnecessary. Removal of this figure further requires various editorial revisions to the document.

ANSI/ADA Specification No. 78 is in harmony with ISO 6877 except for the use of the term "cone" whereas the ISO document continues to use "point" to designate the type of product found in the Specification. In addition, this Specification uses subscripts 0, 3, and 16 for the diameter locations whereas the ISO document uses subscripts 1, 2, and 3.

The working group has considered inclusion of new materials currently commercially available, but decided not to include other material pending additional information regarding the physical properties.

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1 SCOPE AND CLASSIFICATION

1.1 Scope

This specification specifies the dimensions and requirements for prefabricated metallic or polymeric-based cones suitable for use in the obturation of a root canal system restoration. It also specifies numerical systems and color-coding system for designating sizes.

2 NORMATIVE REFERENCES

The following documents form a part of this specification.

- 2.1 ISO 3665: 1976, Photography—Intra-oral Dental Radiographic Film—Specification
(Copies of ISO standards may be obtained from the American National Standards Institute, 25 West 43 St., New York, NY 10036).
- 2.2 ASTM B209 Standard Specification for Aluminum-Alloy Sheet and Plate
(ASTM specifications are available from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428).

3 DEFINITIONS

For the purposes of this specification, the following terms and definitions apply:

3.1 Standardized Cone

Cones having uniform standardization taper of 0.02 throughout all the range of sizes available.

3.2 Taper Size Cone

Cones whose sizes are determined by the tip sizes and the tapers.

3.3 Cone

Complete prefabricated metallic or polymeric dental root canal obturating cone.

3.4 Tip

The narrow end of the cone.

3.5 Unit Pack

The smallest pack that is distributed and that may contain one or more sizes of cones.

4 REQUIREMENTS

4.1 Materials

- 4.1.1 **Metal cones.** Throughout their tapered length, the cones shall be smooth, uniform in composition, without surface pitting and free from inclusions or extraneous matter. Testing shall be carried out in accordance with Clause 5.2.