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NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards¹ was established by an act of Congress on March 3, 1901. The Bureau's overall goal is to strengthen and advance the Nation's science and technology and facilitate their effective application for public benefit. To this end, the Bureau conducts research and provides: (1) a basis for the Nation's physical measurement system, (2) scientific and technological services for industry and government, (3) a technical basis for equity in trade, and (4) technical services to promote public safety. The Bureau's technical work is performed by the National Measurement Laboratory, the National Engineering Laboratory, and the Institute for Computer Sciences and Technology.

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¹Headquarters and Laboratories at Gaithersburg, MD, unless otherwise noted; mailing address Washington, DC 20234.

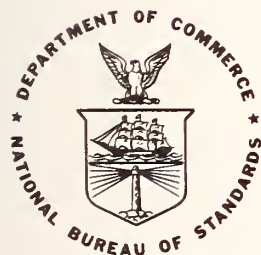
²Some divisions within the center are located at Boulder, CO 80303.

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Organizations Engaged in Preparing Standards for Dental Materials and Therapeutic Agents with a List of Standards

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ORGANIZATIONS ENGAGED IN PREPARING STANDARDS FOR DENTAL MATERIALS AND THERAPEUTIC AGENTS WITH A LIST OF STANDARDS

G. C. Paffenbarger, D.D.S.*, N. W. Rupp, D.D.S., M.S.*, and Margaret Malmstedt**

The first specification for dental materials was prepared by Dr. Wilmer Souder, a physicist at the National Bureau of Standards, in 1927. From this stemmed the specification and certification programs of the American Dental Association (1930) and all of the similar national and international programs.

The Federation Dentaire Internationale (FDI) was the first in the international field (1953). Today the International Organization for Standardization (ISO) through its Technical Committee 106-Dentistry, organized in 1963, is the prime international agency formulating specifications for dental materials and devices. The FDI role by agreement with ISO/TC106 is the preparation of standards on clinical evaluations, on biological test methodology, on the preparation of informative reports on dental materials and therapeutic agents and on the proper methods of using them.

Today there are 15 international and national agencies that have prepared about 900 specifications for dental materials and devices. These agencies and their addresses are listed, with a brief history of each, together with a list of the specifications and standards that they have promulgated.

Key words: Dental agencies; devices; history; materials; programs; specifications.

Introduction

This survey was made at the request of the Commission on Dental Materials, Instruments, Equipment and Therapeutics (COMIET) of the Federation Dentaire Internationale and is really a revision of a former survey made in 1965 (Paffenbarger and Kumpula, 1965).

The survey of the extant specifications for dental materials, instruments and equipment manifests the tremendous growth in such standardization since November 30, 1925 when the first specification for a dental materials was promulgated (Souder, 1927). This was the United States Government Master Specification for Dental Amalgam Alloy, Specification No. 356, prepared by Dr. Wilmer Souder, a physicist at the National Bureau of Standards in Washington, D.C., U.S.A. This specification stemmed from an earlier investigation by Souder and Peters conducted in 1919 (Souder and Peters, 1920) because of a War Department request to the National Bureau of Standards for assistance in specifying the quality of amalgam that could be used in Army procurement.

From this activity stemmed the specification and certification programs of the American Dental Association (Taylor, 1930). This stimulated activity of a similar nature in Australia, Japan, the United Kingdom and other countries.

On the international scene the Federation Dentaire Internationale (FDI) organized an international specification program in 1953. After its development of two specifications, those for alloy for dental amalgam and for dental mercury, the FDI asked the International Organization for Standardization (ISO) in 1958 if ISO would consider FDI Specifications as ISO Standards. As a result ISO Technical Committee 106-Dentistry was formed.

International Organizations

International Organization for Standardization (ISO), 1 rue de Varembé, 1211 Genève 20, Switzerland.

ISO is an international yet nongovernmental organization that has as its object the development of worldwide standards which are published as ISO International Standards. These standards facilitate international exchange of goods and services and develop mutual cooperation in intellectual, scientific, technological and economic activities. The ISO members are 84 national standardization bodies, the most representative one from each country. Annual contributions from each of these member bodies enable the ISO to fulfill its function.

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More than 70 percent of these national standards bodies are either governmental institutions or organizations incorporated by public law. There are 8 countries in which ISO standards are mandatory; in 37 countries the ISO standards are mandatory to some extent; and in 20 countries the use of ISO standards is voluntary. These figures reflect the influence essentially of private control in many ISO member bodies which are supported in whole or in part by government subsidies. ISO has 154 technical committees that prepare draft ISO International Standards in the specific fields assigned to them. When a technical committee has reached agreement on a draft standard, the ISO Secretary General sends it to all member bodies for comment and suggestions which are forwarded to the pertinent technical committee. After careful consideration of any comments, the standard is sent to the Council, ISO's Board of Directors, for adoption as an ISO International Standard.

The ISO Technical Committee for Dentistry, formed in 1963, is ISO/TC106-Dentistry, with the British Standards Institution as the secretariat. ISO/TC106 has as its scope: "Standardization of terminology, methods of test and specifications applicable to materials, instruments, appliances and equipment used in all branches of dentistry." ISO/TC106 has formed six working groups on: (1) filling materials (Canada—Secretariat), (2) denture materials (U.S.A.—Secretariat), (3) terminology (France—Secretariat), (4) instruments and equipment (Germany—Secretariat), (5) classification of dental equipment (Germany—Secretariat), and (6) working space of the dentist (France—Secretariat). Australia, Canada, Czechoslovakia, Denmark, France, Germany, India, Ireland, Italy, Netherlands, Norway, Republic of South Africa, Sweden, Switzerland, United Kingdom, Union of Soviet Socialist Republics, and United States of America are participating members with 21 other member countries with observer status.

Federation Dentaire Internationale (FDI), 64 Wimpole Street, London W1M, 8AL, United Kingdom.

The FDI, founded in Paris in 1900, is a voluntary international federation of 78 national dental associations and has also individual supporting members. A Standing Commission on Dental Materials, Instruments, Equipment and Therapeutics (COMIET) has 15 members and has the responsibility of standardization in the various categories given in its title. Five members are technical representatives from the dental industry and were recommended by dental trade associations in the U.S.A., Europe and Asia.

The nine FDI specifications were adopted in 1966 as ISO Recommendations. Thereafter a close working relationship developed between the FDI and

ISO/TC106-Dentistry by the formation of several Joint Working Groups for specific tasks. The Chairman of the COMIET of the FDI also serves as a member of the governing body of ISO/TC106.

The FDI and ISO have gradually phased out the Joint Working Groups with the ISO/TC106 assuming the responsibility for the ISO International Standards and the FDI becoming responsible for standards on clinical evaluations, on biological test methodology and evaluations, on preparation of informative reports and on proper methods of using materials.

Dental terminology is also a joint undertaking between ISO/TC106 and the FDI, through its Commission on Classification and Statistics for Oral Conditions. This Commission's Working Group No. 5—Intercommission Group on Uniform Definitions of Dental Terms (INCOGUDET) and ISO/TC106 Working Group 3, with the collaboration of related international agencies, are responsible for the joint adoption of definitions. ISO/TC106-Dentistry, ISO/TC42-Photography and ISO/TC84-Syringes for Medical Use and Needles for Injection, have also collaborated with the FDI in their respective fields.

The FDI developed a Uniform System of Tooth Designation which has been adopted by several national and international organizations.

As a result of the cooperation with the ISO, the FDI no longer issues specifications of its own.

The International Electrotechnical Commission, through its Technical Committee 62 and the FDI, have a joint Working Group in Dental Radiology with the FDI's COMIET which has formulated a draft standard, Radiation Protection and Equipment for Dental Radiology, Document IEC/SC 62B-JWG-FDI/COMIET—(Secretary) 15, dated December 7, 1977.

Comité Européen de Normalisation (CEN), Rue Bréderode 2, B-1000 Bruxelles, Belgium.

CEN, the European Committee for Standardization, is an international scientific nonprofit association of the national standardization organizations of European countries operating since 1961 to formulate European standards (EN).

The membership of CEN is comprised of EEC and EFTA countries. Its main objective is to reduce trade barriers between these two organizations which may arise for technical reasons.

Technical Committee 55—Dentistry, the Secretariat of which is the British Standards Institution (BSI), has as its scope the formulation of European Dental Standards.

Members of CEN are also members of ISO and support ISO work. Where ISO Standards, which are

suitable for adoption as European Standards, are available, they are edited in accordance with CEN rules to produce official texts in English, French and German. These three are technically and editorially identical. In other cases CEN establishes its own standards.

CENCER (CEN Certification) is the European organization for certification responsible for promoting the CEN quality mark and for controlling its application. The primary objective of CEN/TC55 is to develop a European certification scheme for dental products. The development of European Standards, where necessary, is to some extent secondary to that objective.

Scandinavian Institute of Dental Materials (Nordisk Institutt for Odontologisk Materialprovning) (NIOM), Forskningsvn. 1, Oslo 3, Norway.

The Scandinavian Institute of Dental Materials (NIOM) was formally established in 1969, by agreement among the governments of Denmark, Finland, Norway and Sweden. The aims of the Institute are to test and do research on dental materials and devices and to ascertain that the products employed in dental practice in the Scandinavian countries are optimal and fulfill any requirements which are put forward in international standards or by legislation.

The Institute is governed by a Board of Directors which comprises one member and an alternate member from each of the participating countries. It is financed, like other Scandinavian institutes, by a proportion corresponding to the gross national product of each country. Presently Sweden covers about 43 percent, Denmark 23 percent, Norway 17 percent and Finland 16 percent. These percentages are adjusted every second year. From 1978 Iceland participates and covers about 1 percent of the budget. Apart from a small administrative unit, NIOM is divided into a physical/chemical division and a biological/clinical division. This recognition of both physical/chemical and biological/clinical aspects makes NIOM unique as a testing institution for dental materials.

The staff of the Institute has been appointed gradually during 1973-1977. Presently, 23 people are employed by NIOM, 15 in the physical/chemical division, 5 in the biological/clinical division and 3 in the administrative unit.

All testing is performed according to ISO Standards, which presently only cover physical/chemical properties of dental materials. The need for biological and clinical assessment of dental materials and instruments is generally accepted, and important standardization work is required to establish biological and clinical testing programs. NIOM is actively engaged in this work, by

participating in the standardization performed by FDI, ISO and CEN.

European Working Party on Dental Therapeutics (EAZA).

The European Working Party on Dental Therapeutics was active (1963-1969) in promoting cooperation among the commissions on dental therapeutics of European Dental Organizations. In 1969 the work of EAZA was merged into the Working Group on Therapeutics of the Commission on Dental Materials, Instruments, Equipment and Therapeutics of the Federation Dentaire Internationale.

World Health Organization (WHO), 1211 Genève, Switzerland.

WHO interests in standardization center principally in the International Pharmacopoeia (Specifications for the Quality Control of Pharmaceutical Preparations).

National Organizations

There are several American (U.S.A.) governmental and nongovernmental agencies which are engaged in standardization work on dental items.

American Dental Association (ADA), 211 East Chicago Avenue, Chicago, Ill. 60611.

The American Dental Association, a dues-paying member of the American National Standards Institute (ANSI), has had a specification program for dental materials since 1930. This and the certification and acceptance programs for dental materials and devices are conducted under the auspices of the ADA Council on Dental Materials and Devices. The ADA serves as the administrative sponsor and pays for the cost of the Secretariat of AN Standards Committee MD 156 for Dental Materials and Devices. Specifications formulated by this AN Standards Committee are usually adopted both by the American Dental Association and the American National Standards Institute, but this pattern is not mandatory.

Lists of Certified Dental Materials and Devices, a program related to the specification activity, have been in operation for almost 5 decades. These lists are based upon certification by a manufacturer that his product complies with the pertinent specification and upon check testing done in the laboratories of the Association. The manufacturer must give evidence of quality control and agree to adhere to the advertising and exhibiting code of the Association. Check testing of products on the lists is a continuing process, and those products not complying are removed from the list.

An acceptance program applies to materials and devices for which evidence of safety and usefulness has been established by biological, laboratory and/or clinical evaluations and where standards and specifications are not available. Categories include acceptable, provisionally acceptable and unacceptable products.

Status reports on dental materials, devices and techniques to assist the dentist in evaluating their safety and efficacy are developed by the Council on the basis of extant knowledge.

A 300-page book, **GUIDE TO DENTAL MATERIALS AND DEVICES**, is prepared biannually.

The American Dental Association has maintained since 1930 an extensive program in dental therapeutics under the auspices of its Council on Dental Therapeutics. This Council's annual publication, **ACCEPTED DENTAL THERAPEUTICS**, an extensive monograph of 342 pages, is now in its 37th edition. It deals with drugs used in dental practice and includes a list of brands accepted by the Council on Dental Therapeutics of the American Dental Association. The Association maintains a Division of Chemistry housed in the Chicago offices of the Association as an investigative and research arm of the Council. The Council also has a grants-in-aid program for the development of desired information about products used in dental health service.

American National Standards Institute (ANSI), 1430 Broadway, New York, N.Y. 10018.

The American National Standards Institute, the U.S.A. member of ISO, is a federation of companies and of trade, technical, professional, consumer and labor organizations. There are about 185 organizational members and 880 company members as of June 1978. The ANSI dental standards are formed under the Committee Method for developing evidence of consensus for approval of American National Standards. The Council on Dental Materials and Devices of the American Dental Association serves as the Secretariat of American National Standards Committee MD 156 for Dental Materials and Devices.

American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pa. 19103.

The American Society for Testing and Materials is an international nonprofit society for the promotion of knowledge of the materials of engineering and the standardization of specifications and methods of testing. The worldwide membership of over 26,000 combines individual and organization members, several thousand being companies, institutions and agencies and shows the broad spectrum of its membership. Since 1898, the society has grown to a system of more than 130

technical committees composed of producers, consumers and general interest groups. The 1976 edition of ASTM Standards, containing over 32,000 pages and including over 5,000 ASTM Standards, reflects the vast important work of the society.

The ASTM has no dental materials committee but has dental representation on its Committee F-4 on Medical and Surgical Materials and Devices, F-19 on Orthotics, External Prosthetics and Mobility Aids, and F-8 on Protective Equipment for Sports. Committee F-4 has formulated over 40 specifications, test methods and recommended practices dealing with orthopedic, neurosurgical and cardiovascular materials and devices. Over 350 manufacturers, physicians, surgeons, bioengineers, biologists and governmental representatives are developing over 90 draft standards within eight F-4 subcommittees.

The Defense Medical Materiel Board. This Board, in the Department of Defense of the United States of America, is composed of personnel from the Army, the Navy and the Air Force. The three military dental services are represented by a senior dental officer whose term as a member of the board is rotated among the services. The board is the sole agency empowered to add items to, delete items from or modify items in the Federal Supply Catalog, Department of Defense, Medical Materiel. This catalog lists about 11,500 items, and about 1,000 of these are dental items. Procurement of these items is supported by either a Federal Specification, a Military Specification, or a Purchase Description. These specifications are prepared by the board on information obtained principally from the manufacturers of the items but supplemented with information available in the literature and extant specifications and regulations of various government agencies and professional and technical societies.

The Index of Federal Specifications and Standards, as established by the Federal Supply Service of the General Services Administration, references about 180 Federal Specifications of dental interest in the 1964 edition.

The Food and Drug Administration (FDA), Dept. of Health, Education and Welfare, has its administrative headquarters and major scientific facilities in the Washington, D.C. area. Additional laboratory and inspection facilities are located in 21 district offices throughout the United States.

The major responsibilities of the Food and Drug Administration are the enforcement of the Federal Food, Drug, and Cosmetic Act and the Radiation Control for Health and Safety Act and portions of the Public Health Service Act. The medical device amendments to the

FD&C Act (May 1976) gave FDA regulatory authority over medical devices comparable to that exercised in the area of new drugs.

The Federal Food, Drug, and Cosmetic Act of 1938, as amended, prohibits the shipment in interstate commerce of adulterated or misbranded foods, drugs, devices and cosmetics. Drugs and devices are misbranded if their labeling is false or misleading in any particular, or if the labeling fails to bear adequate directions for use or adequate warnings or they are a danger to health when used, etc. The Act prohibits the introduction into interstate commerce of any new drug or medical device prior to approval of an application establishing their safety and effectiveness. Applications are required to establish the safety and effectiveness of a new drug or new medical device for use as recommended in the labeling. Antibiotic drugs are subject to testing and certification on a batch basis to assure their safety and effectiveness. The premarketing clearance requirements for new drugs and antibiotics and devices apply to those used in dentistry as well as other areas.

Specifications and laboratory test procedures for antibiotic drugs, including dental preparations, are published as part of the regulations issued by FDA. In the case of new drugs, manufacturers are required to submit proposed specifications and laboratory test procedures and an application may not be approved until these are found to be adequate.

The Federal Food, Drug, and Cosmetic Act recognizes the specifications and test methods in the United States Pharmacopoeia, National Formulary, and Homeopathic Pharmacopoeia as official standards for drugs. Drugs that are not recognized as official drugs in the official compendia are regarded as adulterated if their identity, strength, purity or quality differs from that which they purport or are represented to possess. Since the Drug Amendments of 1962, drugs have also been regarded as adulterated if the methods, facilities or controls used for their manufacture, processing, packing or holding fail to conform with current good manufacturing practice to assure their safety and integrity. The Medical Device Amendments of 1976 provide similar requirements for devices. These provisions of the law also apply to drugs and devices used in dentistry.

The Medical Device Amendments of 1976 are designed to protect the public and health professionals from unsafe and ineffective devices and at the same time not to discourage innovation in medical and dental technology by unnecessary or overly burdensome restrictions. The new amendments make distinctions between those devices which present little risk to health and those which are intricate life sustaining and life

supporting or are of substantial importance in preventing impairment of human health.

The Medical Device Amendments of 1976 recognize the need for the widest range of scientific expertise to assist in the regulatory process. It prohibits the marketing of new devices until their safety and efficacy have been established. The FDA now has the authority to remove dangerous devices from the market expeditiously.

Medical devices are classified on the basis of the degree of regulation necessary to assure safety and effectiveness as follows: Class I, general controls; Class II, performance standards; Class III, premarket approval.

FDA can exempt a device, if it is intended solely for investigational use, and if the necessary protection of patients is instituted through an agency review committee where such exist. Most provisions of the Amendments relating to medical devices become effective upon enactment, although many such provisions do not become enforceable regulatory requirements until regulations promulgated by the FDA become effective. The first regulations to implement the new law are given in "Implementation of the Medical Device Amendments of 1976" Federal Register 41:22620-22621 (June 4, 1976).

The Food and Drug Administration has an active program involving inspection of drug and device manufacturing establishments and the collection and laboratory examination of drugs and devices on the market. To assure the integrity of the drug and device supply, the law makes provisions for seizure, injunction, and criminal prosecution to deal with drugs and devices in violation of the Act.

Dental Standards in Australia—Australian Organizations Involved in Standards for Dental Materials. Australian dental standards are formulated by the appropriate dental technical committee of the Standards Association of Australia, Standards House, 80-86 Arthur Street, North Sydney, N.S.W. 2060, in response to requests from any reasonable source, provided that an inquiry shows that the proposed standards are warranted. The technical committees are composed of representatives drawn from all major interests associated with the particular subjects for which standards are being prepared. These generally include users, purchasing bodies, manufacturers, suppliers, regulatory bodies, research and testing organizations.

The Australian Dental Standards Laboratory, 240 Langridge Street, Abbotsford, Victoria 3067, generally carries out the technical work for the preparation of dental and allied standards, because of the expertise and

testing facilities it possesses. The Laboratory was established in 1936 and became a function of the Australian Department of Health in 1947. Until 1973 it was known as the Commonwealth Bureau of Dental Standards.

The Australian Dental Association, 116 Pacific Highway, North Sydney, N.S.W. 2060, Standing Committee on Tariffs, Instruments, Materials and Equipment adopts the standards for use in connection with its program for accreditation of dental products, lists of which are published periodically. Samples are tested at the Australian Dental Standards Laboratory for compliance with the appropriate standard, for which service a nominal charge is made.

Australia is closely involved with ISO and FDI with the objective of developing International Standards.

British Standards Institution (BSI), 2 Park Street, London W1A, 2BS, United Kingdom.

The BSI represents the UK member Body of ISO and is the oldest among the National Standards Organizations tracing its origin back to the Engineering Standards Committee formed in 1901. BSI holds the Secretariat for ISO/TC106-Dentistry and that of the Organization for Standardization Technical Committee CEN/TC55-Dental Products. To date some 30 British Standards for dental items have been published, many of which are in several Parts. The formulation of these standards is carried out by various technical committees responsible to the BSI Dental Standards Committee with expertise being provided by representatives of the British Dental Association and other health professional societies, the British Dental Trade Association, various government departments including the Laboratory of the Government Chemist, various dental schools and universities and a number of individual co-opted experts. There is a comprehensive approvals program for dental materials currently being operated in the UK by the Department of Health with the Laboratory of the Government Chemist providing the specification testing facilities. This program applies to dental materials used in the National Health Service, and British Standards are the routine reference specifications.

Canadian Standards Association (CSA), 178 Rexdale Boulevard, Rexdale, Ontario M9W 1R3, Canada.

The CSA is a nonprofit, independent organization engaged in developing standards and certifying to standards. Its corporate mission is: "Services in Support of Voluntary Standardization."

Subsequent to the organization of the Health Care Technology Program in 1973, the Technical Committee on Dentistry was formed "to develop standards for

procedures (other than clinical procedures), materials, devices and equipment used in the practice of dentistry with the object of assuring the safety and welfare of patients and dental personnel and the performance of products." The Committee also participates as the Canadian Advisory Committee for TC106-Dentistry of the International Organization for Standardization.

To date the Technical Committee has formed four subcommittees to survey and prepare standards for such matters as filling materials, prosthetic materials, terminology and instruments. Though, as yet, dental standards have not been published, the development of standards is progressing rapidly. It is expected that the standards prepared by these subcommittees will be based primarily upon relevant ISO and American standards with suitable revisions for Canadian applications, if necessary.

The Czechoslovakian Society for Standardization and Measuring (Úrad Pro Normalizaci a Měření) (CSN), Václavské Namesti 19, Praha-1-Nové Město, Czechoslovakia.

This organization has developed seven specifications since the first one was promulgated in 1955. One specification deals with terminology of tools, apparatus, and appliances for dentistry, one for instruments and five for materials. These standards are obligatory.

French Standards Association (Association Francaise de Normalisation) (AFNOR), Tour Europe, Cedex 7, 92080 Paris, La Defense, France.

The French Standards Association, founded in 1926, filled the gap left by the Permanent Standardization Commission (CPS). CPS instituted itself in 1918. AFNOR has always been a private, nonprofit organization which was recognized as a public service by a 1943 decree. Its membership consists of government authorities, scientific and technical societies, industrial and commercial associations, private firms and individuals. About 99 percent of AFNOR's 10,000 National Standards are voluntary. Twenty-eight deal with dentistry through the National Committee, Art Dentaire.

German Standards Institute (Deutsches Institut für Normung e.V. Normenausschüsse Dental) (DIN), Westliche 56, 7530 Pforzheim, W. Germany, is the central body responsible for standardization in Germany. Since 1917 standardization is in progress in Germany and more than 15,000 standards exist. Membership in DIN is voluntary and not a pre-condition for participation in working groups. DIN is a nongovernmental institute with very little subsidy by the government.

The Normenausschuss Dental, with its secretariat at 7530 Pforzheim, Westliche 56, W. Germany, is responsible for standardization in the field of dentistry. DIN by Normenausschuss Dental is the official and only representative of Germany in international standardization bodies, particularly in ISO. Working results of about 15 national working groups of Normenausschuss Dental are laid down and published in about 70 DIN standards. These standards may be ordered through Beuth-Verlag, Burggrafenstrasse 4-10, 1000 Berlin 30, or any national standards institute.

Hungarian Standards Association (Magyar Szabványügyi Hivatal) (MSZH), U1101-UT-25, Budapest IX, Hungary.

This agency has formulated 32 specifications for dental instruments. A separate specification is given for each handheld instrument. Less than 20 percent of the standards are compulsory.

Indian Standards Institution (ISI), Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi, 110 002, India.

This institution, established in 1947, is sustained principally by subscribing members in different categories, and by a grant-in-aid from the Government of India. ISI has published over 9,000 standards since its inception. Most of these standards are used by governmental agencies at all levels, commercial organizations and other public and private undertakings.

Standards Institution of Israel (SII), University Street, Tel Aviv, Israel.

This institution has three specifications dealing with dentistry, dental casting gold alloy and tooth brushes.

Japanese Industrial Standards Committee (JISC), Agency of Industrial Science and Technology, Ministry of International Trade and Industry, 3-1, Kasumigaseki, Chiyoda-ku, Tokyo, Japan.

This committee in the government Agency of Industrial Science and Technology has 29 divisions, including one for the formulation of specifications for medical instruments and apparatus. This medical division has delegates from the health professions, manufacturers, government officials and researchers. The actual work of preparing the specifications is carried on by a committee formed to work out a specification for a particular type of material or instrument. This committee's composition includes dentists, manufacturers and researchers. The recommendations of each committee go through channels until they reach the

Minister of Welfare who makes them official Japanese Industrial Standards (JIS). There are at present 30 kinds of dental materials and 32 items of dental apparatus for which JIS status has been granted.

Polish Committee of Standardization and Measures (Polski Komitet Normalizacji i Miar) (PKN), 00-139 Warszawa, ul. Elektoralna 2, Poland.

This committee gives the following information on standardization of dental items.

The series of standards in dentistry, worked up in Poland, contains national standards lettered PN and branch standards lettered BN. National standards relate to classification, nomenclature, marking, parameters and features of production quality having general and particularly valid significance. They are mandatory throughout the country. BN standards have the character of civil standards but they are mandatory in the narrower domain of application, and in the smaller range. They relate to the problems of standardization of definite products.

The standards related to dentistry are developed by Research-Development Centre of Medical Technics—"ORMED." The national standards are definitely established by Polish Committee of Standardization and Measures which runs the whole standardization work in Poland.

South African Bureau of Standards (SABS), Dr. Lategan Road, Groenkloof, Private Bag X191, Pretoria, Republic of South Africa.

SABS assumed the task of standardization at its founding in 1945 by an Act of Parliament. Its operating funds stem from a parliamentary grant, fees from testing, inspection and certification schemes and sales of publications.

For some of the products listed only government purchasing (CKS) specifications are available, while for others national standard (SABS) specifications are available. The latter are generally more comprehensive and in addition to normal use can form the basis of certification marking schemes.

Swedish Standards Institution (Standardiseringskommissionen i Sverige) (SIS), Box 3295, S-103 66 STOCKHOLM, Tegnergatan 11, Sweden.

SIS does not for the time being publish any standards on dental materials but is channeling and coordinating the Swedish participation in ISO/TC106-Dentistry.

The Swedish Planning and Rationalization Institute of the Health and Social Services (Spri), Fack, S-102 50, Stockholm, Sweden, does publish specifications—Swedish hospital standards—for dental equipment, in-

struments and materials. Spri is closely associated with SIS and takes part actively in the work of ISO/TC106-Dentistry.

By agreement among the governments of Denmark, Finland, Norway and Sweden, the Scandinavian Institute

of Dental Materials (NIOM) has been formed for testing, certification and research regarding dental materials and equipment to be used in the four countries. For this task ISO International Standards are used to the greatest possible extent.

Extant Specifications for Dental Materials

A listing of the current specifications for dental materials throughout the world shows the following:

Organization	Number of Specifications
Federation Dentaire Internationale (FDI)	Uses ISO Standards
International Organization for Standardization (ISO)	24
American Dental Association (ADA)	65
Dental Specifications of Various States of the U.S.A.	10
American National Standards Institute (ANSI)	34
Defense Medical Materiel Board (DMMB) (U.S.A.)	334*
Standards Association of Australia (SAA)	54
British Standards Institution (BSI)	30
Canadian Standards Association (CSA)	9
Czechoslovakian Society for Standardization and Measuring (CSN)	7
French Standards Association (AFNOR)	29
German Standards Institute (DIN)	66
Hungarian Office of Standardization (MSZH)	27
Indian Standards Institution (ISI)	135
Standards Institution of Israel (SII)	3
Japanese Standards Association (JISC)	63
Polish Committee of Standardization and Measures (PKNIM)	45
South African Bureau of Standards (SABS)	21
Swedish Planning and Rationalization Institute (Spri)	61

*Many dental items such as paper and cotton products, etc. are not included.

Index to World Dental Specifications and Standards

Each national ISO Member Body serves, within its country, as the sole sales agent and information center for international specifications and for specifications of other national standardizing bodies, as well as for its own national specifications.

ISO INTERNATIONAL STANDARDS

Title	ISO Number
Alloy for dental amalgam	ISO 1559-1978
Dental mercury	ISO 1560-1975
Dental inlay casting wax	ISO 1561-1975
Dental casting gold alloys	ISO 1562-1976
Alginate impression material	ISO 1563-1978
Agar impression material	ISO 1564-1976
Dental silicate cement (hand mixed)	ISO 1565-1978
Dental zinc phosphate cement	ISO 1566-1978
Dental base resin	ISO 1567-1978
Dental burs and cutters—Fitting dimensions	ISO 1797-1976
Dental vocabulary—List 1: Basic terms Bilingual edition	ISO 1942/1-1977
Dental vocabulary—List 2: Dental materials Bilingual edition	ISO 1942/2-1977
Dental vocabulary—List 3: Dental instruments and equipment Bilingual edition	ISO 1942/3-1977
Dental vocabulary—List 4: Terms associated with testing of dental materials, instruments and equipment Bilingual edition	ISO 1942/4-1976
Dental burs and cutters—Nominal sizes and designation of working parts	ISO 2157-1972
Dental zinc oxide/eugenol filling materials	ISO 3106-1974
Dental zinc oxide-eugenol cementing materials	ISO 3107-1974
Dentistry—Working space of the dentist—Definitions and principles	ISO 3246-1977
Dentistry—Synthetic resin teeth	ISO 3336-1977
Dental silicophosphate cement (hand-mixed)	ISO 3824-1977
Capsulated dental silicate and silico-phosphate filling materials	ISO 3851-1977
Tooth designation for dental purposes—Two-digit system	ISO 3950-1977
Dental handpieces—Coupling dimensions	ISO 3964-1977
Resin-based dental filling materials	ISO 4049-1978

**LIST OF DRAFT INTERNATIONAL STANDARDS (DIS) AND DRAFT PROPOSALS (DPs)
WHICH ARE CURRENTLY BEING PREPARED BY ISO/TC106-DENTISTRY**

Title	Number
Revision of 1463—1973 Metallic and Oxide Coatings—Measurement of Coating Thickness—Microscopical Method	DP 1463
Revision of 1562—1976 Dental Casting Gold Alloys	DP 1562
Addendum 1 to 1942/1	DAD 1942/1
Addendum 2 to 1942/1	DAD 1942/1
Addendum 1 to 1942/2	DAD 1942/2
Dental Vocabulary—List 3: Dental Instruments and Equipment—Addendum 1	DAD 1942/3
Addendum 2 to 1942/3	DAD 1942/3
Addendum 1 to 1942/3—1977 Dental Vocabulary—List 3: Dental Instruments and Equipment	DAD 1942/3
Addendum 1 to 1942/4	DAD 1942/4
Dental Root Canal Instruments—Part 1: Nominal Sizes, Dimensions and Colour Coding for Reamers and Files	DIS 3630/1
Dental Root Canal Instruments—Part 2: Files and Reamers	DP 3630/2
Dental Root Canal Instruments—Part 3: Barbed Broaches and Rasps	DP 3630/3
Dental Root Canal Instruments—Part 4: Paste Carriers	DP 3630/4
Dental Burs and Cutters—Dimensions of Working Parts and Overall Length, Requirements for Run-out (Eccentricity and Surface Roughness)	DIS 3823
Dental Equipment—Items of Dental Equipment at the Working Place—Identification System	DIS 4073
Dental Operating Chair—General Requirements	DIS 4083
Dental Carboxylate Cement	DIS 4104
Elastomeric Dental Impression Materials	DIS 4823
Dentistry—Porcelain Teeth	DP 4824
Cobalt-Chromium Denture Base Materials	DP 4825
Dental Rotary Instruments—Number Coding System—Part 1: General Principles	DIS 6360/1
Dental Rotary Instruments—Number Coding System—Part 2: Material of Working Part, and Coating or Binding	DIS 6360/2

Dental Rotary Instruments—Number Coding System—Part 3: Type of Shank and Handle, and Overall Length	DIS 6360/3
Dental Rotary Instruments—Number Coding System—Part 4: Shape and Design	DP 6360/4
Denture Base Metal Casting Alloys	DP 6871
Dental Porcelain Powders	DP 6872
Dental Gypsum Products	DP 6873
Dental Pit and Fissure Sealants	DP 6874
Dental Patient Chair—Specification	DP 6875
Dental Root Canal Sealers	DP 6876
Endodontic Core Materials	DP 6877

Index to National Dental Specifications and Standards

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) AMERICAN DENTAL ASSOCIATION (ADA) SPECIFICATIONS*

Title	ADA Number
<i>Specifications</i>	
Alloy for Dental Amalgam	1
Casting Investment for Dental Gold Alloy	2
Dental Impression Compound	3
Dental Inlay Casting Wax	4
Dental Casting Gold Alloy	5
Dental Mercury	6
Dental Wrought Gold Wire Alloy	7
Dental Zinc Phosphate Cement	8
Dental Silicate Cement	9
Dental Agar Impression Material	11
Denture Base Polymers	12
Denture Cold-Curing Repair Resin	13
Dental Base Metal Casting Alloys	14
Acrylic Resin Teeth	15
Dental Impression Paste—Zinc Oxide-Eugenol Type	16
Denture Base Temporary Relining Resin	17
Dental Alginate Impression Material	18
Elastomeric Dental Impression Material	19
Dental Duplicating Material	20
Dental Zinc Silico-Phosphate Cement	21
Intraoral Dental Radiographic Film	22
Dental Excavating Burs	23
Dental Base Plate Wax	24
Dental Gypsum Products	25
Dental X-Ray Equipment and Accessory Devices	26
Direct Filling Resins	27
Endodontic Files and Reamers	28
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Orthodontic Wires Not Containing Precious Metals	32
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Dental Floss	56
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Standards

Shapes, head dimensions and shank dimensions for Dental Diamond
rotary instruments

Recommended standard practices for clinical research protocol for
dental materials and devices

Dental terminology

Recommendations

For mercury surveys of dental offices

In radiographic practices

In mercury hygiene

*These specifications, standards and recommendations are available from the American Dental Association, 211 East Chicago Avenue, Chicago, Ill. 60611, U.S.A.

DENTAL SPECIFICATIONS OF VARIOUS STATES OF THE U.S.A.

Some states in the U.S.A., namely, New York,* New Jersey,** and Pennsylvania*** have dental specifications as follows:

State	Title	Number
NY	Automatic Dental Film Processor (X-Ray) (University) (1971)	11001-0716
NY	Panoramic Dental X-Ray System and Related Accessories (Hospital)	11001-0559
NY	Stationary Extra and Intra Oral Full Mouth Dental X-Ray System (Medical Center) (1968)	11001-0865
NY	Split Assembly Dental X-Ray Unit (Psychiatric Institute) (1971)	11001-0867
NY	Wall Mounted Dental X-Ray Unit (1968)	11001-0886
NY	Mobile Dental X-Ray Unit (1969)	11001-0851
NJ	Medical and Dental X-Ray Film (X-26) (1969)	13
NJ	Dentistry (1968), Specification for Laundry Service	9932-02A
NJ	New Jersey College of Medicine and Dentistry (1968) (Catalogue)	9932-02A
Pa	Dentrifice (Therapeutic) for Dental Hygiene (1971) USC Ps50	D-25

*Director of Purchasing, Division of Purchasing, Office of General Services, 119 Washington Avenue, Albany, N.Y. 11225

**Division of Purchase and Property, Department of the Treasury, State House, Trenton, N.J. 08625

***Secretary of Property and Supplies, Department of Property and Supplies, Room 602, North Office Building, Harrisburg, Pa. 17125

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

Title	Number
Dental Materials, Specifications for:	
Alloy for Dental Amalgam (ADA Spec No. 1) (Agrees with ISO 1559) (redesignation of Z156.1-1972)	MD156.1-1972
Casting Investment for Dental Gold Alloy (ADA Spec No. 2) with Addendum MD156.2a-1965 (R1975) (redesignation of Z156.2-1962 and Z156.2a-1965)	MD156.2-1962 (R1975)
Dental Impression Compound (ADA Spec No. 3) with Addendum MD156.3a-1965 (R1975) (redesignation of Z156.3-1962 and Z156.3a-1965)	MD156.3-1962 (R1975)
Dental Inlay Casting Wax (ADA Spec No. 4) (Agrees with ISO 1561) (revision and redesignation of Z156.4-1962)	MD156.4-1975
Dental Casting Gold Alloy (ADA Spec No. 5) (redesignation of Z156.5-1972)	MD156.5-1972
Dental Mercury (ADA Spec No. 6) (Agrees with ISO 1560) (redesignation of Z156.6-1962)	MD156.6-1962 (R1975)
Dental Wrought Gold Wire Alloy (ADA Spec No. 7) (Agrees with ISO 1562) with Addendum MD156.7a-1965 (R1975) (redesignation of Z156.7-1962 and Z156.7a-1965)	MD156.7-1962 (R1975)
Dental Zinc Phosphate Cement (ADA Spec No. 8) (redesignation of Z156.8-1972)	MD156.8-1972
Dental Silicate Cement (ADA Spec No. 9) (Agrees with ISO 1565) (redesignation of Z156.9-1963)	MD156.9-1963 (R1975)
Dental Agar Impression Material (ADA Spec No. 11) (redesignation of Z156.11-1972)	MD156.11-1972
Denture Base Polymers (ADA Spec No. 12) (Agrees with ISO 1567) (revision and redesignation of Z156.12-1965) (R1975)	MD156.12-1965
Denture Cold Curing Repair Resin (ADA Spec No. 13) (redesignation of Z156.13-1962)	MD156.13-1962 (R1975)
Dental Chromium-Cobalt Casting Alloy (ADA Spec No. 14) with Addendum MD156.14a-1965 (R1975) (redesignation of Z156.14-1962 and MD156.14a-1965)	MD156.14-1962 (R1975)
Acrylic Resin Teeth (ADA Spec No. 15) with Addendum MD156.15a-1965 (R1975) (redesignation of MD156.15-1962 and Z156.15a-1965)	MD156.15-1962 (R1975)
Dental Impression Paste, Zinc Oxide-Eugenol Type (ADA Spec No. 16) with Addendum MD156.16a-1965 (R1975) (redesignation of of Z156.16-1962 and Z156.16a-1965)	MD156.16-1962 (R1975)
Denture Base Temporary Relining Resin (ADA Spec No. 17) with Addendum MD156.17a-1965 (R1975) (redesignation of Z156.17-1962 and Z156.17a-1965)	MD156.17-1962 (R1975)
Alginate Impression Material (ADA Spec No. 18) (redesignation of Z156.18-1972)	MD156.18-1972

Elastomeric Impression Material (ADA Spec No. 19) (redesignation of Z156.19-1972)	MD156.19-1972
Dental Duplicating Material (ADA Spec No. 20) (redesignation of Z156.20-1972)	MD156.20-1972
Dental Zinc Silico-Phosphate Cement (ADA Spec No. 21) redesignation of Z156.21-1972)	MD156.21-1972
Intraoral Dental Radiographic Film (ADA Spec No. 22)	PH8.1
Dental Excavating Burs (ADA Spec No. 23) (revision, redesignation and consolidation of Z122.2-1966 and Z156.23-1972)	MD156.23-1975
Dental Base Plate Wax (ADA Spec No. 24) (redesignation of Z156.24-1972)	MD156.24-1972
Dental Gypsum Products (ADA Spec No. 25) (redesignation of Z156.25-1972)	MD156.25-1973
Dental X-Ray Equipment (ADA Spec No. 26)	MD156.26-1975
Direct Filling Resins (ADA Spec No. 27)	MD156.27-1976
Root Canal Files and Reamers (ADA Spec No. 28)	MD156.28-1976
Hand Instruments, Dental: General Specifications for (ADA Spec No. 29)	MD156.29-1976
Dental Zinc Oxide-Eugenol Restorative Materials (ADA Spec No. 30)	MD156.30-1977
Exposure Time Designations for Timers of Dental X-Ray Machines (Reaffirmation of PH6.4-1970) (ADA Spec No. 31)	MD156.31-1975
Orthodontic Wire Not Containing Precious Metals (ADA Spec No. 32)	MD156.32-1977
Dental Terminology (ADA Spec No. 33)	MD156.33-1976
Dental Aspirating Syringes (ADA Spec No. 34)*	
Size Designations and Dimensions for Intraoral Dental Radiographic Film	PH6.2-1970 (R1976)
Speed Classification for Intraoral Dental Radiographic Film	PH6.1-1970 (R1976)

*Proposed

Copies may be obtained from:

The American National Standards Institute,
1430 Broadway, New York, N.Y. 10018, U.S.A.

DENTAL FEDERAL AND MILITARY SPECIFICATIONS AND STANDARDS^{(1),(2)}

FSC ⁽³⁾	Title	Number	Date
6520	Abrasive Paste, Dental, Validated Jul 74	P-A-86A	14 Aug 57
6520	Abrasive Paste, Dental	P-A-0086B	17 Nov 70
6520	Abrasive, Dental, Powder	MIL-A-36826A	15 Aug 78
6520	Amalgamator, Electric, Dental, Single Speed	MIL-A-37711	02 Jan 77
6520	Applicator Set, Pin Retention, Dental	MIL-A-36644	03 Mar 70
6520	Arbor and Band Set, Dental Handpiece, Validated Sep 73	GG-A-00671C	23 Jan 67
6520	Articulator, Dental	GG-A-684	22 May 47
6520	Articulator, Dental	GG-A-00684A	16 Oct 68
6520	Articulator, Dental, Plain Line, Lingual Access Design	MIL-A-37819A	18 Aug 78
6520	Bag, Dental Prosthesis, Plastic Validated Sep 73	MIL-B-36528	10 Feb 67
6520	Band Set, Copper, Dental and Copper Strip. Dental, Validated Jul 74	RR-B-96B	18 Jul 57
6520	Band Set, Matrix, Dental, Strip, Matrix Dental, and Band, Matrix, Dental	GG-B-0095D	07 Jun 72
6520	Band Set, Matrix, Dental, Strip, Matrix Dental and Band, Matrix, Dental, Validated Oct 69	GG-B-95C	10 Oct 62
6520	Band, Abrasive (Silicon-carbide), for Dental Lathes, Validated Jul 74	GG-B-89B	04 Mar 58
6520	Band, Abrasive (Silicon-carbide), Validated Jul 74	GG-B-0089C	09 Mar 67
6520	Band, Ligature, Dental, Rubber	ZZ-B-00117B	12 Jan 71
6520	Band, Ligature, Dental, Rubber, Validated May 72	ZZ-B-117A	04 Sep 58
6520	Bands and Strip, Copper, Dental	RR-B-0096C	13 May 68
6520	Baseplate, Dental, Validated Jul 74	GG-B-120A	20 Sep 56
6520	Baseplate, Dental	GG-B-00120B	16 Apr 69
6520	Basket, Cartridge, Dental Impression Material	MIL-B-36877	06 Jul 72
6520	Bath, Water, Dental Impression Compound, Thermostatically Controlled	GG-B-00140C	17 Sep 70
6520	Bath, Water, Dental Impression Compound, Thermostatically Controlled	GG-B-140A	16 Apr 57
6520	Bath, Water, Dental Impression Material, Low Temperature	MIL-B-37295A	17 Aug 78
6520	Blade and Flame, Dental Laboratory Die Saw	MIL-B-36411	15 Mar 65

6520	Blade and Frame, Dental Laboratory Saw	GG-B-00406B	12 Aug 70
6520	Blades and Frame, Dental Laboratory Saw, Validated Jul 74	GG-B-406A	28 Jan 58
6520	Block, Soldering, Dental	GG-B-00476D	01 Nov 72
6520	Block, Soldering, Dental, Validated Jul 74	GG-B-476C	12 Feb 58
6520	Blowpipe Outfit, Acetylene	GG-B-511	31 Jul 52
6520	Blowpipe, Soldering, Dental Laboratory, Validated May 66	GG-B-501B	20 Aug 58
6520	Blowtorch, Alcohol	MIL-B-36777A	31 Aug 78
6520	Bowl, Plaster of Paris Mixing	ZZ-B-00616C	09 Dec 69
6520	Bowl, Plaster of Paris Mixing	ZZ-B-616D	23 Aug 76
6520	Brazing Alloy, Gold, Validated May 66	QQ-B-653B	23 Mar 60
6520	Broach, Pulp Canal, Barbed, Dental	GG-B-00686D	07 Jun 73
6520	Broach, Root Canal, Dental, Validated Jul 74	GG-B-686B	13 Aug 57
6520	Brush, Bristle, Dental Handpiece, Mandrel Mounted	GG-B-00735A	15 May 74
6520	Brush, Bristle, Dental Handpiece, Mandrel Mounted, Validated Jul 74	GG-B-735	09 Aug 60
6520	Brush, Denture, Cleaning	H-B-00185A	13 Jul 70
6520	Brush, Denture, Cleaning, Validated Jul 74	H-B-185	01 Nov 60
6520	Brush, Fiber, Rotary Wheel (for Dental Lathe)	GG-B-00750D	06 Nov 69
6520	Brush, Fiber, Rotary Wheel (for Dental Lathe), Validated Aug 69	GG-B-750C	30 Apr 62
6520	Brush, Polishing, Dental Handpiece (Right Angle)	MIL-B-36170A	24 Mar 70
6520	Brush, Scratch, Dental, Validated Jul 74	H-B-248A	18 Dec 58
6520	Brush, Scratch, Dental	H-B-00248B	10 Aug 67
6520	Bur, Dental, Validated Aug 64	GG-B-821	14 May 48
6520	Bur, Dental Surgery, Validated Jul 74	MIL-B-36446A	24 Sep 73
6520	Bur, Dental Excavating, Tungsten Carbide	GG-B-00821E(1)	12 Apr 76
6520	Bur, Dental, Excavating, Endodontic	MIL-B-36829A	25 Sep 78
6520	Bur, Dental, Finishing	GG-B-001275	17 Oct 67
6520	Bur, Dental, Finishing, Tungsten Carbide	MIL-B-37036	03 Apr 74
6520	Bur, Dental, Operating, Endodontic	MIL-B-36827A	25 Sep 78
6520	Bur, Denture Trimming	MIL-B-36179A	09 Sep 65
6520	Bur, Denture Trimming	GG-B-823C(1)	17 Jun 75
6520	Bur, Denture Trimming, Straight Handpiece, Tungsten Carbide	MIL-B-37811A	26 Sep 78
6520	Burner Outfit, Gas, Dental Laboratory	GG-B-00511A	19 Aug 69

6520	Burnisher, Dental	GG-B-001294	13 Feb 67
6520	Cabinet, Tooth Assortment, Compartmented	GG-C-0048A	12 Sep 67
6520	Cabinets, Compartmented, Metal, Dental, for Porcelain Teeth, Validated Jun 64	GG-C-48	27 Jul 50
6520	Capsule and Pestle, Dental Amalgam	MIL-C-37360	12 Aug 76
6520	Carrier, Amalgam (Dental)	U-C-125	15 May 54
6520	Carrier, Amalgam (Dental)	U-C-00125B	23 Apr 68
6520	Carver, Dental (Amalgam and Wax)	GG-C-1265C	01 Jul 76
6520	Case, Dental Instruments, Sterilizing and Storage	MIL-C-36260A	14 Feb 73
6520	Casting, Machine, Dental Metals and Replacement Parts	GG-C-001321	13 Oct 67
6520	Cement, Copper and Zinc Phosphates, Dental, Validated Mar 65	U-C-198A	23 Jan 57
6520	Cement, Silicate and Zinc Phosphate, Dental	MIL-C-36814	09 Feb 72
6520	Cement, Zinc Oxide and Eugenol, Dental (Crown and Bridge)	MIL-C-36548A	21 Mar 77
6520	Cement, Zinc Oxide and Eugenol, Dental (Intermediate Restorative Material)	MIL-C-36757A	08 Sep 76
6520	Cement, Zinc Oxide and Polyacrylic Acid, Dental	MIL-C-36871	07 Jun 72
6520	Cement, Zinc Phosphate, Dental, Validated Jul 74	U-C-211A	13 Dec 56
6520	Cement, Zinc Phosphate, Dental	U-C-00211D	06 Sep 74
6520	Chair, Rotary, Dental Prosthetic Laboratory	MIL-C-36173A	11 Feb 69
6520	Chisel, Dental, Bone, Surgical	MIL-C-37741A	15 Sep 78
6520	Chisel (Cutting Instruments), Dental, Carbon Steel	MIL-C-36804	09 Nov 71
6520	Chisel (Cutting Instruments), Dental	GG-C-001433B	12 Jul 76
6520	Chisel, Denture Trimming	GG-C-00289A	11 Sep 69
6520	Chisel, Denture Trimming, Laboratory, Validated Jul 74	GG-C-289	25 Oct 49
6520	Clay, Modeling, 1/2 lb.	U-C-00451A	28 Mar 72
6520	Clay, Modeling, Dental, Validated Jul 74	U-C-451	14 Jan 48
6520	Cloth, Squeeze, Dental	DDD-C-00475B	09 Jun 72
6520	Coating Plastic, Denture Model	MIL-C-36584	10 Jul 69
6520	Cone, Felt, Dental Grinding and Polishing Machine	GG-C-00576C	26 Jun 73
6520	Cones and Wheels, Felt, Dental Grinding and Polishing Machine, Validated Jul 74	GG-C-576B	18 Mar 57
6520	Covers, Bracket Table, Dental, Paper	UU-C-611C	23 Jun 76
6520	Cup and Holder, Dental Waste, Validated Sep 73	MIL-C-36498	22 Jul 66
6520	Cup, Dental Amalgam	MIL-C-36843A	08 Feb 77

6520	Cup, Polishing, Dental Handpiece (Screw Stem)	GG-C-1320A	21 Oct 76
6520	Curette, Alveolar (Molt)	GG-C-1282B	09 Nov 76
6520	Curettes, Periodontal, Gracey	MIL-C-36491A	26 Jan 76
6520	Curettes, Periodontal, McCall	MIL-C-36507B	27 Apr 76
6520	Curing Unit, Denture	GG-C-860B	20 Jun 78
6520	Curing Unit, Denture, Two Stage	GG-C-00860A	03 Jul 69
6520	Dental Engine, Laboratory, Bench, Electric, Validated May 66	GG-D-195A	04 Sep 58
6520	Dental Engine, Laboratory, Bench, Electric	GG-D-00195B	07 Nov 68
8520	Dentifrice	FFF-D-191D	16 Apr 75
6520	Denture Base Forming Kit, Fluid Resin Technique, Validated Jul 78	MIL-D-36776	16 Jul 71
6520	Disk, Plastic, Abrasive, Dental	MIL-D-36256	26 Jun 76
6520	Disk Set, Abrasive, Dental Handpiece (Disk, Abrasive, Mandrel, Dental Handpiece)	GG-D-00419D	21 Oct 76
6520	Disk Set, Abrasive, Dental Handpiece (Paper, with Stand)	GG-D-419D	21 Oct 76
6520	Disk, Abrasive, Silicon Carbide, Dental, Validated May 76	GG-D-00426B	17 Feb 69
6520	Disk, Abrasive, Silicon Carbide, Dental, Validated June 75	GG-D-426A	09 Jan 57
6520	Dispenser, Cotton Pellet, Dental, Validated Jun 75	GG-D-00444B	19 Jan 68
6520	Dispenser, Cotton Pellet, Dental, Validated Jun 75	GG-D-444A	19 Apr 57
6520	Dispenser, Dental Floss, Metal, Validated Sep 73	MIL-D-36242A	20 Sep 66
6520	Dispenser, Mercury, Dental	GG-D-455	13 Sep 56
6520	Dispenser, Strip, Dental, Validated Jun 75	GG-D-00441C	30 Apr 69
6520	Dispenser, Strip, Dental, Validated Jun 75	GG-D-441B	01 May 57
6520	Drill, Pulp Canal, Dental, Gates-Glidden, Angle Handpiece	MIL-D-37775A	19 Sep 78
6520	Drill, Pin Hole, Dental	MIL-D-36786A	14 Mar 74
6520	Elevator, Dental, Surgical	GG-E-1161	26 Apr 67
6520	Excavator, Dental, Corrosion Resisting Steel	GG-E-1230B	13 Jul 76
6520	Excavator, Dental (Darby-Perry)	GG-E-001334	04 May 67
6520	Excavator, Dental, Carbon Steel	MIL-E-36803	09 Nov 71
6520	Explorer, Dental, Validated Jun 75	GG-E-916B	26 Aug 57
6520	Explorer, Dental	GG-E-00916E	06 Apr 73
6520	File and Reamer Set, Pulp Canal, Dental, Validated Jul 74	GG-F-336C(1)	31 Jan 61

6520	File and Reamer, Pulp Canal, Dental Standardized	GG-F-00336G	23 Jun 76
6520	File, Bone, Dental, Double-ended, Seldin No. 11, Validated Jul 78	MIL-F-36733	06 Jan 71
6520	File, Periodontal, Orban	MIL-F-36523A	12 Oct 72
6520	File, Pulp Canal, Dental, Hedstrom	MIL-F-36782	05 Aug 71
6520	Flashlight, Patient, Examining, Disposable	MIL-F-36678B	22 Mar 76
6520	Flask, Denture, Crown and Bridge, Validated May 76	MIL-F-36585	03 Sep 69
6520	Flask, Denture, Upper and Lower, Ejector Type	MIL-F-36284A	07 Aug 68
6520	Floss and Tape, Dental, Waxed USER-GL 26 REV-EA	FFF-F-486B	28 Oct 76
6520	Floss, Waxed, Dental REV-EA	FFF-F-00486A	15 Feb 67
6520	Flux, Casting, Dental (Reducing)	O-F-501B	25 Mar 58
6520	Forceps, Casting, Removing, Dental	MIL-F-36571B	10 Jan 77
6520	Forceps, Dental Articulating Paper, Validated May 76	MIL-F-36176A	03 Oct 69
6520	Forceps, Dressing, Dental, Validated Jun 75	GG-F-599	02 May 68
6520	Forceps, Dressing, Dental	GG-F-00599A	05 Jan 70
6520	Forceps, Rubber Dam Clamp, Dental	MIL-F-36458A	17 Oct 72
6520	Forceps, Tooth Extracting, Validated Jul 74	GG-F-1240	13 Feb 68
6520	Forceps, Tooth Extracting, Validated Jul 78	GG-F-001240A	23 Aug 72
6520	Furnace, Dental Laboratory, Electric	W-F-7790	18 Nov 77
6520	Gingival Retraction Cord	MIL-G-36509C	04 Aug 78
6520	Gold Alloy, Casting, Dental	QQ-G-00540B	01 Feb 65
6520	Gold Foil, Cylinder, Dental	QQ-G-00545B	03 May 71
6520	Gold, Casting, Dental	QQ-G-540A(1)	11 Jun 59
6520	Gold, Foil, Cylinders (for dental fillings), Validated Jul 74	QQ-G-545(1)	30 Mar 51
6520	Grinding and Polishing Machine, Dental Laboratory, Validated Jul 78	OO-G-682	08 Aug 56
6520	Grinding and Polishing Machine, Dental Laboratory, Bench Mounted, 115 Volt, 60 Cycle, AC	OO-G-00682A	29 Sep 70
6520	Grinding and Polishing Machine, Dental Laboratory, Bench Mounted, High Speed, 110 Volt, 60 Cycle, AC, Validated Jul 75	MIL-G-36294A	28 May 69
6520	Grinding and Polishing Machine, Dental Laboratory, Floor Mounted, 110 Volt, 60 Cycle, AC, (Use in lieu of Fed Spec OO-G-684), Validated Jul 74	OO-G-00684B	15 Mar 67
6520	Grinding and Polishing Machine, Dental Laboratory, Floor Mounted, 110 Volt, 60 Cycle, AC, Validated Jul 78	OO-G-684	31 Jul 58

6520	Guide, Occlusal Plane, Fox	MIL-G-36928	09 Dec 72
6520	Guide, Sharpening, Dental Instrument, Validated Jul 78	MIL-G-36651	12 Mar 70
6520	Handpiece, Dental, Contra-angle Round Sleeve, Latch Type	MIL-H-36734A	16 Jul 75
6520	Handpiece, Dental, Contra-angle, with Friction Grip Chuck, Round Sleeve	MIL-H-36887(1)	05 Apr 76
6520	Handpiece, Dental Laboratory, Straight High Speed, Belt Driven, Validated Jul 78	MIL-H-36794	03 Sep 71
6520	Handpiece, Dental, Right Angle, Prophylaxis, Round Sleeve, Screw Stem	MIL-H-36809B	03 Mar 77
6520	Handpiece, Dental, Contra-angle, Round Sleeve, Latch Type	MIL-H-0036734B	22 Dec 76
6520	Handpiece, Dental, Straight, Round Nose, Belt Driven, Validated Jul 78	MIL-H-36730	11 Dec 70
6520	Headband, Mirror, Validated Jun 75	GG-H-166B(1)	26 Feb 59
6520	Holder, Amalgam Capsule, Dental, Plastic, Validated Jul 78	MIL-H-36817	08 Mar 72
6520	Holder, Cotton Roll, Dental, Validated Jul 78	MIL-H-36601	11 Sep 69
6520	Holder, Dental Mixing Pad	MIL-H-37098	14 Apr 75
6520	Holder, Napkin, Dental, Validated May 76	GG-H-575B	14 May 57
6520	Holder, Napkin, Dental, Validated Jul 74	GG-H-00575C	24 Apr 67
6520	Holder, Rubber Dam, Dental, U-shaped, and strap	MIL-H-36575A	31 Oct 72
6520	Impression Material (Modeling Compound) Dental	U-I-490B	29 Jun 77
6520	Impression Material, Dental Zinc Oxide-Eugenol Paste	U-I-00500A	08 Mar 72
6520	Impression Material, Dental, Cartridge Form, Hydrocolloid, Agar Type, Validated Jul 78	MIL-I-36878	11 Jul 72
6520	Impression Material, Dental, Duplicating, Hydrocolloid, Agar Type, Validated Jul 78	MIL-I-36838	11 Jul 72
6520	Impression Material, Dental, Hydrocolloid, Agar Type, Validated Jul 78	U-I-00496B	16 Oct 67
6520	Impression Material, Dental, Hydrocolloid, Alginate Type	U-I-00498B	17 Aug 67
6520	Impression Material, Dental, Paste, Validated Jun 75	U-I-500	08 Nov 60
6520	Impression Material, Dental, Rubberbase Paste	U-I-001159A	13 Mar 75
6520	Impression Material, Dental, Tissue Conditioner Type	MIL-I-36993	15 Sep 73
6520	Impression Material, Hydrocolloidal, Agar Type, Dental, Validated Jul 74	U-I-496A	10 Jun 53

6520	Impression Material, Hydrocolloidal, Alginate Type, Dental	U-I-498C	12 Jan 76
6520	Impression Material (Modeling Compound) Dental	U-I-490B	29 Jun 77
6520	Investment, Dental, Casting, Gold Alloy, Validated Jun 75	U-I-546B	03 Oct 61
6520	Investment, Dental, Casting, Gold Alloy, Validated Jul 78	U-I-00546C	09 Aug 71
6520	Investment, Soldering, Dental, Validated Jun 75	U-I-552A	25 Apr 52
6520	Investment, Soldering, Dental, Validated Jul 78	U-I-00552B	26 Oct 71
6520	Knife, Margin Finishing, Dental, Baird Handle, Dental Instrument Point, Cone Socket, Validated May 76	MIL-K-36669	15 Apr 70
6520	Knife, Plaster, Dental, Validated Jun 75	GG-K-00508C	08 Jan 69
6520	Knives, Dental, Craftman S. Compound, and Plaster	GG-K-508B	27 Mar 57
6520	Knives, Periodontal, Kirkland	MIL-K-36480	18 Apr 66
6520	Knives, Periodontal, Orban	MIL-K-36486A	03 Mar 69
6520	Light Set, Surgical, Overhead, Electric Shadow-reducing, Demountable (Naval Shipboard Use)	MIL-L-2034C	23 Jan 75
6520	Lubricant, Silicate Cement, Dental, Validated Jul 78	P-L-00790A	15 Jan 71
6520	Lubricant, Silicate Cement, Dental, Validated Jun 75	P-L-790(1)	06 Feb 57
6520	Mallet, Oral Surgery	GG-M-105D	18 Jul 77
6520	Mallet, Oral Surgery, Validated Jul 74	GG-M-00105C	02 Oct 64
6520	Mandrels, Dental Handpiece, Validated Jun 75	GG-M-108A	25 Sep 56
6520	Mandrels, Dental Handpiece	GG-M-00108D	04 Jun 73
6520	Mat, Floor, Dental Chair, Rubber	ZZ-M-42	10 Apr 47
6520	Matrix Set, Dental, Plastic, Cervical, Validated July 78	MIL-M-36821	13 Mar 72
6520	Medicine Glass	DD-M-00200B	13 May 70
6520	Mirror and Mirror Handle, Mouth Examining	GG-M-00431E	07 Oct 76
6520	Mirror and Mirror-light, Dental-REV-MB	MIL-M-36727B	23 Sep 78
6520	Mirror, Mouth Examining, REV-MI	GG-M-431E	07 Oct 76
6520	Mirror, Mouth Examining, Plastic, Plane Glass, Disposable	MIL-M-36552A	12 Apr 76
6520	Mixer, Dental Casting Investment (Mechanical), Validated Jun 75	GG-M-00500A	10 May 68
6520	Mixer, Dental Casting Investment (Mechanical) Validated Jun 75	GG-M-500	12 Mar 57
6520	Mixing Pad, Parchment Paper, Dental	GG-M-00515A	21 Dec 67

6520	Mixing Pad, Parchment Paper, Dental	GG-M-515B	28 May 76
6520	Mixing Slab, Dental, Validated Jun 75	DD-M-440	24 Sep 56
6520	Mixing Slab, Dental	DD-M-00440A	02 Jul 71
6520	Mouthpiece, Saliva Ejector, Dental, Plastic, Disposable	MIL-M-36231D	13 Jul 78
6520	Mouthpiece, Saliva Ejector, With Reflector Blades, Dental, Validated Sep 69	MIL-M-36221	12 Jun 64
6520	Pad, Dental Rubber Dam, Validated Jul 74	MIL-P-36403B	26 Jul 67
6520	Paste, Peridental Protective Surgical Soft Dressing	MIL-P-37920	31 Aug 78
6520	Pin, Tooth Die	MIL-P-36556A	10 Jul 76
6520	Plaster, Dental Impression and Modeling	SS-P-446D	27 May 75
6520	Plastic Filling Instruments and Contour-Instrument, Dental	GG-P-001278A	02 Jan 70
6520	Plastic Strip, Dental Matrix	L-P-525A	10 Feb 58
6520	Plastic Strip, Dental Matrix, Validated Jul 74	L-P-00525B	30 Nov 66
6520	Plastic Strip, Dental Surface Protection Mouthguard	MIL-P-36895	08 Nov 72
6520	Plastic Strip, Denture Trial Pack, Validated Jul 78	MIL-P-36464	29 Dec 65
6520	Platinum Foil (Dental), Validated Jul 74	QQ-P-00428C	28 Feb 67
6520	Platinum Foil (Dental), Validated Jul 78	QQ-P-428B(1)	09 Apr 57
6520	Plier, Dental No. 114, Johnson Design, Validated Jul 78	MIL-P-36892	24 Aug 72
6520	Pliers, Dental, Amalgam Reinforcement Pin, Validated Jul 78	MIL-P-36855	14 Jun 72
6520	Pliers, Dental, Contouring and Crimping No. 137	MIL-P-37361	04 Feb 74
6520	Pliers, Dental, Holding and Placing	MIL-P-37083	09 Apr 75
6520	Pliers, Dental, Steiglitz, 5 3/16 inches, Validated Jul 78	MIL-P-36712	24 Sep 70
6520	Plugger, Amalgam, Dental, Markley, Validated Jul 78	MIL-P-36577	17 Jul 69
6520	Plugger, Plastic Filling, Dental, Glick	MIL-P-36959	22 Mar 73
6520	Plugger, Pulp Canal	GG-P-00481D	13 Apr 73
6520	Plugger Set, Plastic Filling, Dental	MIL-F-37717A	28 Sep 78
6520	Point Assortment, Pulp Canal (Paper, Absorbent), Validated Jun 75	GG-P-581B	21 Apr 58
6520	Point Assortment, Pulp Canal, Standardized, Silver	GG-P-1127A	24 Jun 75
6520	Points, Pulp Canal, Dental, Paper, Validated Jul 74	GG-P-00581D	18 Oct 73
6520	Press, Flask, Dental	GG-P-00636B	15 Feb 73

6520	Press, Flask, Dental, Validated Jun 75	GG-P-636	09 Oct 52
6520	Preventive Dentistry Kit, Patient	GG-P-001428A	09 Apr 75
6520	Preventive Dentistry Paste, Patient	MIL-P-36671A	14 Apr 72
6520	Probes, Periodontal	MIL-P-36477A	19 Feb 76
6520	Probes, Periodontal	MIL-P-37928	27 Oct 78
6520	Protector, Denture, Model Plastic	MIL-P-37500	26 Apr 78
6520	Pulp Protector, Dental, Validated Sep 73	U-P-001250	01 Nov 66
6520	Pulp Protector, Dental, Calcium Hydroxide Paste	MIL-P-37088	25 Mar 75
6520	Pulp Protector, Dental, Zinc Oxide and Eugenol	MIL-P-36705	19 Aug 70
6520	Pump, Filler (Aspirators) and Couplings, Validated Jul 74	GG-P-821A	09 Jul 52
6520	Punch, Dental, Rubber Dam	GG-P-850	25 Aug 60
6520	Punch, Dental, Rubber Dam	GG-P-00850A	13 Nov 68
6520	Remover, Dental Crown, Simplex	GG-R-001638	09 Apr 70
6520	Resin, Acrylic, Dental	U-R-00179A	20 Feb 67
6520	Resin, Acrylic, Dental	U-R-179	15 Sep 54
6520	Resin, Acrylic, Dental, Fibered Denture Base Material	MIL-R-37770A	16 Sep 78
6520	Resin, Acrylic, Dental, Impression Tray Material	MIL-R-36433B	18 Apr 72
6520	Retainer, Matrix, Dental	GG-R-1472A	16 Jun 75
6520	Retractor, Tongue and Cheek—University of Minnesota	MIL-R-37942	
6520	Rongeurs, Dental	GG-R-001549	21 Nov 68
6520	Rubber Dam, Dental	ZZ-R-00690A	19 Jun 68
6520	Rubber Dam, Dental, Validated Jul 74	ZZ-R-690	20 Aug 58
6520	Scaler, Dental, Morse	MIL-S-36186B	16 Sep 76
6520	Scaler, Dental, Single Ended	GG-S-001634	30 Jan 70
6520	Scissors, Collar and Crown	GG-S-001616	01 Sep 70
6520	Scissors, Oral Surgical	MIL-S-36456A	18 Feb 76
6520	Sealing Compound, Pulp Canal, Dental	U-S-00156C	17 Apr 73
6520	Separator, Teeth, Dental, Elliott, Curved Jaw	GG-S-00208A	25 Mar 69
6520	Separator, Teeth, Dental, Elliott, Curved Jaw, Validated May 72	GG-S-208	20 Sep 60
6520	Silver Alloy Pellet, Dental	MIL-S-37708	28 Dec 76
6523	Smocks, Dental Operating and Medical Assistant	DDD-S-496E	02 Oct 67
6520	Soldering Frame and Tripod, Laboratory Apparatus, Dental, Validated Jul 74	MIL-S-36469A	26 Aug 66

6520	Spatula, Dental and Carver, Dental (Wax)	GG-S-598C	06 Apr 76
6520	Spatula, Dental and Carver, Dental (Wax)	GG-S-00598B	15 Aug 67
6520	Spatula, Dental, Cement	GG-S-00590A	12 Aug 69
6520	Spatula, Dental, Cement	GG-S-590B	21 Oct 76
6520	Spatula, Dental, No. 313	MIL-S-36793	09 Sep 71
6520	Spatula, Dental, Plastic	MIL-S-36697	22 Jun 70
6520	Splint Set, Arch Wire, Dental, Validated Jul 74	GG-S-00627B(1)	08 Jul 66
6520	Splint, Jaw, Fracture, Arch Wire and Accessories (Dental)	GG-S-627A(1)	13 Dec 56
6520	Spreader, Gutta-percha, Dental, No. 3	MIL-S-36377A	08 Feb 77
6520	Stone, Artificial, Dental	U-S-746A	11 Oct 77
6520	Stone, Artificial, Dental	U-S-00746C(1)	12 Jun 70
6520	Stool, Dental Operating Chair, Mobile	MIL-S-36574	24 Jan 69
6520	Stopping, Temporary, Dental	MIL-S-36396	24 Feb 65
6520	Strip Assortment and Disks, Aluminum Oxide Abrasive, Safe-sided, Metal-backed, Dental	GG-S-00783C	13 Mar 70
6520	Strip, Abrasive, Dental	GG-S-770	26 Aug 76
6520	Strip, Abrasive, Dental	MIL-S-36948	22 Feb 73
6520	Strip, Abrasive, Dental (Metal, Safe-sided) and Strip Assortment, Abrasive, Dental (Metal, Safe-sided)	GG-S-783B(1)	16 Jul 58
6520	Suction Apparatus, Dental	GG-S-00271	03 Aug 67
6520	Surveyor, Clasp, Dental	GG-S-805B	18 Nov 77
6520	Surveyor, Clasp, Dental, Validated Jul 74	GG-S-00805A	08 Feb 67
6520	Syringe, Air and Water, Dental	GG-S-00915A	04 Sep 70
6520	Syringe, Air, Dental, Validated Jul 74	GG-S-915	30 Dec 59
6520	Syringe, Dental Impression Material and Replacement Parts	MIL-S-36894A	07 Jul 78
6520	Template, Dental	MIL-T-36631	09 Mar 70
6520	Tin Foil (for Dental Use), Validated Jul 74	QQ-T-276	18 Jul 51
8530	Toothbrushes (for Adults and Children)	H-F-560A	15 Sep 72
6520	Tooth Die Pin Placement Kit	MIL-T-36820	12 Apr 72
6520	Tracer, Gothic Arch, Dental, Validated May 72	MIL-T-36476	30 Mar 66
6520	Tray, Alloy Accessory, Dental Plastic	MIL-T-36729	09 Dec 70
6520	Tray, Impression, Dental, Validated Jul 74	GG-T-626	07 Mar 55
6520	Tray, Impression, Dental	GG-T-00626A	27 Apr 72

6520	Tray, Insert, Dental Instrument and Supplies Cabinet, Plastic	MIL-T-36754A	12 Jan 77
6520	Trimmer, Gingival Margin, Black	GG-T-1368B	21 Sep 76
6520	Vibrator, Dental Molding, 115 Volt, 60 Hertz AC	MIL-V-36372B	29 Jun 77
6520	Wax, Base-plate, Dental, Validated Jul 74	U-W-135B	15 Jan 76
6520	Wax, Baseplate, Dental	U-W-00135A	26 Mar 70
6520	Wax, Boxing, Dental, Validated Jul 74	U-W-138	12 May 47
6520	Wax, Casting, Dental, Validated Jul 74	U-W-140	16 Mar 53
6520	Wax, Dental (Casting, Inlay)	U-W-00141B	19 Sep 67
6520	Wax, Dental (Casting, Inlay)	U-W-141A(1)	04 Apr 57
6520	Wax, Dental Utility	U-W-00156A	18 Apr 69
6520	Wax, Dental (Boxing), Validated Jul 74	U-W-00138A	24 Jan 67
6520	Wax, Dental, Casting, Validated Jul 74	U-W-00140A	14 Jun 67
6520	Wax, Dental, Sticky, Validated Jul 74 REV-OS	U-W-00149(1)	13 Apr 67
6520	Wax, Sticky, Dental, Validated Jul 74	U-W-149	23 Nov 48
6520	Wax, Utility, Dental, Validated Jul 74	U-W-156	17 Aug 48
6520	Wedge Set, Dental, Matrix, Wood and Holder, Matrix Wedge, Contra-angle	MIL-W-36421B	04 Mar 77
6520	Wheel Abrasive, Aluminum Oxide	MIL-W-37584	21 Oct 76
6520	Wheel Set, Abrasive, Aluminum Oxide, Mandrel-mounted, Dental	MIL-W-2129A	15 Aug 78
6520	Wheel Set, Abrasive, Rubber Points	MIL-W-37583	29 Jun 77
6520	Wheel, Abrasive (Silicon carbide, Mounted, Dental)	GG-W-239B	13 May 76
6520	Wheel, Abrasive, Impregnated Rubber, Pumice	GG-W-00253A	22 Jan 73
6520	Wheel, Abrasive, Silicon Carbide	GG-W-239B	13 May 76
6520	Wheel, Abrasive, Silicon Carbide, Dental Model Trimming	MIL-W-37013	01 Apr 74
6520	Wheel, Buffing, Chamois, Dental, Validated May 76	KK-W-266A	08 Sep 61
6520	Wheel, Buffing, Cloth, Dental, Validated Jun 75	GG-W-259A	22 Jul 59
6520	Wheel, Buffing, Cloth, Dental	GG-W-00259B	26 Apr 72
6520	Wheel, Lathe, Silicon carbide, Dental	GG-W-258	09 Oct 52
6520	Wire, Platinum Alloy	MIL-W-16193B	23 Sep 77
6520	Wire, Snare (Spring Steel, Medical), Validated Jun 75	GG-W-331	02 Nov 51
6520	Work Box, Dental Laboratory	MIL-W-36453B	16 Sep 76
6525	Hanger, X-ray Film, Processing, Dental	MIL-H-36203A	17 Sep 73

6525	Mount, Radiographic Film, Dental	G-M-00656C	21 May 70
6525	Mount, Radiographic Film, Dental, Validated Jun 66	G-M-656A	12 Aug 58
6525	Safe, Dental X-Ray Film, Protective	AA-S-75	29 Apr 59
6525	Viewer Dental Radiographic Film, AC-DC	GG-V-350	09 Aug 60
6525	X-Ray Apparatus, Dental, Wall Mounted, 15 Ma 90 kVp 100-130 Volt, 50-60 Hz. AC	MIL-X-36386A	06 Sep 73

⁽¹⁾ Federal Specifications may be purchased from:

General Services Administration, Specification and Consumer Information, Distribution Branch (3FRI), Washington Navy Yard, Building 197, Washington, D.C. 20407

⁽²⁾ Military (MIL) Documents may be obtained from:

The Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pa. 19120

⁽³⁾ FSC (Federal Supply Catalog)

STANDARDS ASSOCIATION OF AUSTRALIA (SAA)

Title	SAA Number
Dental Rubber Dam	1022-1971
Toothbrushes	1032-1971
Acrylic Denture Base Resin	1043-1971
Dental Chisels, Excavators, Probes and Scalers	1086-1971
Dimensions of Shanks and Chuck Fittings for Dental Rotary Instruments	1093-1972
Dental Duplicating Material	1097-1972
Intra-Oral Dental X-ray Films (amended 1976)	1139-1971
Cold Processing Resins for Denture Repairs	1183-1977
Elastomeric Dental Impression Materials	1185-1972
Dental Zinc Phosphate Cement	1186-1972
Orthodontic Latex Elastic Bands	1240-1973
Dental Shellac Baseplates	1241-1973
Orthodontic Band Cements	1253-1973
Dental Gutta-Percha Points	1258-1977
Dental Single-Use Cartridge Hypodermic Needles (Sterile)	1264-1972
Dental Alginate Impression Material (amended 1974)	1282-1972
Dental Rubber Dam Punch	1283-1974
Dental Excavating Burs: Part I Basic Requirements including Design and Dimensions	1373-1977
Dental Stainless Steel Root Canal Files and Reamers	1411-1976
Dental Operating Luminaires (Lights) for Oral Illumination	1437-1976
Dental Modelling Waxes	1453-1973
Dental Silicate and Silicophosphate Cements (amended 1977)	1454-1973
Dental Mercury	1581-1973
Dental Inlay Casting Waxes	1582-1973
Dental Sticky Wax	1583-1973
Dental Hypodermic Needles (Reusable)	1592-1974
Dental Artificial Stone	1616-1974
Dental Casting Golds	1620-1976
Dental Silver Solder	1622-1976
Dental Gold Solder	1623-1976
Dental Wrought Gold Alloys	1625-1976
Acrylic Teeth	1626-1974

Dental Impression Plaster	1651-1974
Dental Laboratory Plaster	1652-1974
Dental Modelling Compounds	1917-1976
Dental Agar Impression Material	1920-1976
Dental Die Stone	1959-1976
Dental Impression Paste	1963-1977
Orthodontic Wires (Resilient)	1964-1977
Dental Zinc Oxide/Eugenol Restorative Materials	2109-1978
Alloy for Dental Amalgam	2110-1977
Dental Polycarboxylate Materials	2194-1978
Dental and Mobile Medical X-ray Machines	3201.5-1977
Under Revision:	
Anaesthetics for Dental Injection	T19 -1961
Dental Casting Investment	T22 -1963
Cobalt Chromium Casting Alloy	T28 -1964

Title	Number	Published or Revised
Acrylic Resin Denture Base Polymer	BS2487	1969
Sizes of Film for Dental Radiography	2585	1975
Specification for Dental Amalgam Alloy (Silver-Tin)	2938	1961
Dental Chisels Excavators Probes and Sealers	2965	1970
Hypodermic Dental Needles	2983	1958
Specification for Dental Zinc Phosphate Cement	3364	1970**
Specification for Dental Silicate Cement and Dental Silico-Phosphate Cement	3365	1961
Part 1—Silicate Cements		1969**
Part 2—Silico-Phosphate Cement		1971**
Part 3—Capsulated Cements		1972**
Specification for Dental Base Metal Casting Alloys	3366	
Part 1—Denture Base Alloys		1976
Part 2—Inlay, Crown and Bridge Alloys		1976
Specification for Dental Gold Solders	3384	1961*
Specification for Dental Impression Compound	3886	1965
Specification for Orthodontic Wire and Tape and Dental Ligature Wire Made of Stainless Steel	3507	1976
Specification for Dental Inlay Casting Wax	3508	1962
Specification for Dental Wrought Precious Metal Alloy Wire	3520	1962
Specification for Acrylic Resin Teeth	3990	1966**
Specification for Doyen's Mouth Gag	3991	1966
Specification for Dental Rotary Instruments	4178	
Part 1—Dimensions of shanks and chuck fittings		1967
Part 2—Shapes and sizes of heads of dental burs		1972
Specification for Dimensions of the Transmission Coupling (Slip-Joint) to Dental Handpieces	4222	1967
Specification for Dental Mercury	4227	1967
Dental Elastic Impression Materials	4269	
Part 1—Elastomeric Impression Material		1968
Part 2—Alginate Impression Material		1968**
Dental Zinc Oxide-Eugenol Impression Materials	4284	1968
Dental Casting Gold Alloy	4425	1969
Glossary of Terms Relating to Dentistry	4492	1970*
Dental Impression Plaster	4598	1970*
Mouth Mirrors and Mouth Mirror Handles	4681	1971

Dental Laboratory Plaster	4722	1971*
Dental Extracting Forceps (Performance Requirements)	4750	1971
Dental Artificial Stone	4796	1972*
Toothpastes	5136	1974*
Dental Casting Investments	5189	
Part 1—Gypsum Bonded Dental Casting Investments		1975
Part 2—Phosphate Bonded Dental Casting Investments		1975
Part 3—Ethyl Silicate Bonded Dental Casting Investments		1975
Resin-Based Filling Materials	5199	1975
Popular Patterns of Dental Extracting Forceps	5211	1975

Specification for Dental Porcelain for Jacket Crowns—about to be published.

*Under revision

**ISO Standard being adopted

CANADIAN STANDARDS ASSOCIATION (CSA)

Title	Number	Published or Revised
Dental Terminology and Definitions/Art Dentaire—Terminologie et définitions	CAN3-Z349.1-79	1979
Dental Burs and Cutters—Fitting Dimensions (Adopted ISO 1797-1976, with editorial modification)	CAN3-Z349.2M79	1979
Dental Inlay Casting Wax (Adopted ISO 1561-1975, with editorial modification)	CAN3-Z349.4-M80	At press
Dental Casting Gold Alloys (Adopted ISO 1562-1979, with modification)	CAN3-Z349.5-M80	At press
Tooth Designation for Dental Purposes—Two-Digit System (Adopted ISO 3950-1977, with editorial modification)	CAN3-Z349.9-M80	At press
<i>Related Standards</i>		
Construction and Test of X-Ray Equipment	C22.2 No. 114-1961	1951
Electromedical Equipment	C22.2 No. 125-1979	1979
Continuous Flow Anaesthetic Apparatus (Anaesthetic Machines) for Medical Use	pZ168.3-1978	1978
Non-Flammable Medical Gas Piping Systems	Z305.1-1975	1975
<i>Standards in Preparation</i>		
Dental Mercury	Z349.3	1980
Alginate Dental Impression Material	Z349.6	1980
Agar Impression Material	Z349.7	1980
Synthetic Resin Teeth	Z349.8	1980

CZECHOSLOVAKIAN SOCIETY FOR STANDARDIZATION AND MEASURING (CSN)

Title	CSN Number
Terms of tools, apparatus and appliances for dental surgeons	84 0006
Connection of dental drills with handles	85 7350
Dental zinc phosphate cements	66 5220
Dental silicate cements	66 5221
Heat-cured acrylic resin for dental use	66 5222
Self-curing acrylic resin for dental use	66 5223
Casting investment for dental chrome alloy	66 5224

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*English version is available

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SOUTH AFRICAN BUREAU OF STANDARDS (SABS)

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Dental handpieces—Coupling dimensions	Spri 554 31 (ISO/DIS 3964)
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Dental zinc oxide/eugenol cementing materials	Spri 562 41 (ISO/DIS 3107-1974)
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Dental silicate cement (hand-mixed)	Spri 563 43 (ISO/1565-1978)
Dental carboxylate cement	Spri 562-45
Dental inlay casting wax	Spri 564 21 (ISO/R-1561-1970)
Denture base resin	Spri 564 61 (ISO/1567-1978)
Synthetic resin teeth	Spri 564 51 (ISO/DIS 3336)
Alginate dental impression material	Spri 564 71 (ISO/DIS 1563)
Tooth designation for dental purposes—Two-digit system	Spri 569 01 (ISO/DIS 3950)

Copies of above Standards may be obtained from a National member of ISO or from Spri (The Swedish Planning and Rationalization Institute of Health and Social Services) Fack, S-102 50 Stockholm, Sweden.

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15. SUPPLEMENTARY NOTES Library of Congress Catalog Card Number: 80-600041 Document describes a computer program; SF-185, FIPS Software Summary, is attached. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) The first specification for dental materials was prepared by Wilmer Souder, a physicist at the National Bureau of Standards, in 1927. From this stemmed the specification and certification programs of the American Dental Association (1930) and all of the similar national and international programs. The Federation Dentaire Internationale (FDI) was the first in the international field (1953). Today the International Organization for Standardization (ISO) through its Technical Committee 106-Dentistry, organized in 1963, is the prime international agency formulating specifications for dental materials and devices. The FDI role by agreement with ISO/TC106 is the preparation for standards on clinical evaluations, biological test methodology, on the preparation of informative reports on dental materials and therapeutic agents and on the proper methods of using them. Today there are 15 international and national agencies that have prepared about 900 specifications for dental materials and devices. These agencies and their addresses are listed, with a brief history of each, together with a list of the specifications and standards that they have promulgated.			
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