

**SPECIFICATION
FOR
TABLEWARE, PLASTIC, HEAVY DUTY**

(THIS SPECIFICATION IS RELEASED FOR PROCUREMENT PURPOSES UNTIL REVISED OR RESCINDED.)

SCOPE

THIS SPECIFICATION COVERS HEAVY-DUTY ALPHA-CELLULOSE-FILLED PLASTIC MELAMINE TABLEWARE FOR USE IN THE SERVING OF FOOD.

ITEMS FURNISHED IN EACH CATEGORY TO BE OF THE SAME PHYSICAL SHAPE TO FACILITATE STACKING. SHALL BE FIRST LINE AND FIRST QUALITY IN EVERY RESPECT AND SHALL MEET FULL REQUIREMENTS OF THIS SPECIFICATION. EACH BIDDER SHALL FURNISH EVIDENCE THAT THE MELAMINE TABLEWARE HE OFFERS MEETS OR EXCEEDS THE REQUIREMENTS OF THIS STANDARD AND CARRIES THE NSF APPROVAL. PREFERENCE IS FOR TABLEWARE WHICH IS HIGHLY RESISTANT TO STAINING BY FOODS, COFFEE, TEA AND JUICES. TABLEWARE SHALL BE AVAILABLE IN ALL STANDARD COLORS, PATTERNS AND DESIGNS OF THE STYLES OR PATTERNS BID, AND FURNISHED IN THE STANDARD COLORS, PATTERNS, AND DESIGNS AS MAY BE SPECIFIED ON INDIVIDUAL ORDERS PLACED UNDER THE PROPOSED CONTRACT. ALL SHIPMENTS SHALL BE MADE IN ACCORDANCE WITH STANDARD COMMERCIAL PACKAGING AND PACKING.

I. CLASSIFICATION

THE TABLEWARE SHALL BE CLASSIFIED AS FOLLOWS:

CLASS I - PLAIN, UNDERCOATED
CLASS II - DECORATED

II. APPLICABLE STANDARDS

THIS SECTION NOT APPLICABLE.

III. REQUIREMENTS

A. MATERIALS

THE MATERIAL SHALL BE NSF APPROVED, OF FIRST QUALITY, 100% NEW AND SUITABLE FOR THE INTENDED USE. THE TABLEWARE SHALL BE MOLDED FROM ALPHA-CELLULOSE-FILLED MELAMINE-FORMALDEHYDE AND OTHER APPROVED AMINO-TRIAZINE-FORMALDEHYDE PLASTIC MATERIALS.

B. WORKMANSHIP

TABLEWARE WORKMANSHIP SHALL BE FIRST CLASS IN EVERY RESPECT AND MANUFACTURED IN ACCORDANCE WITH BEST INDUSTRY STANDARDS.

C. DESIGN

THE TABLEWARE SHALL BE MOLDED USING THE BEST DESIGN STANDARDS PRESCRIBED BY THE INDUSTRY.

D. CONSTRUCTION

THE MATERIALS THAT MAKE UP THE TABLEWARE SHALL BE MOLDED UNDER CONTROLLED PRESSURE AND HEAT IN ONE PIECE IN SUCH A WAY THAT THE MATERIALS WILL NOT BECOME UNBOUNDED OR SEPARATED.

THICKNESS: TABLEWARE SHALL HAVE A THICKNESS OF NOT LESS THAN 0.100 INCH OVER NOT LESS THAN 90% OF THE SURFACE AREA, WITH THE REMAINDER NOT LESS THAN .09 INCH IN THICKNESS.

FINISH: THE SURFACE OF ALL TABLEWARE, INCLUDING DECORATIONS SHALL BE REPRESENTATIVE OF THAT PRODUCED BY GOOD MOLDING PRACTICE AND FREE FROM READILY PERCEPTIBLE IMPERFECTIONS, SUCH AS ORANGE PEEL, PITS, FLOW LINES, UNFUSED AREAS, AND CONTAMINATION. FLASH AND PARTING LINES ONLY SHALL BE BUFFED.

DECORATIONS: WHEN FOIL DECORATIONS ARE USED, THEY SHALL CONSIST OF ONLY AN AMINO-TRIAZINE RESIN-IMPREGNATED FOIL INCORPORATED IN SUCH A MANNER AS TO BECOME AN INTEGRAL PART OF THE MOLDED PIECE, AND TO BE COMPLETELY COVERED BY A RESINOUS SURFACE, AS DURABLE AS THE UNDERCOATED SURFACE.

IV. WARRANTY

THE CONTRACTOR WARRANTS TO THE OWNER THAT ALL TABLEWARE FURNISHED UNDER THIS SPECIFICATION WILL BE NEW, OF GOOD MATERIAL AND WORKMANSHIP, AND AGREES TO REPLACE PROMPTLY ANY PART OR PARTS WHICH BY REASON OF DEFECTIVE MATERIAL OR WORKMANSHIP SHALL FAIL UNDER NORMAL USE, FREE OF NEGLIGENCE OR ACCIDENT, FOR A MINIMUM PERIOD OF 12 MONTHS FROM DATE PUT IN OPERATION. SUCH REPLACEMENT SHALL BE FREE OF ANY CHARGE TO THE OWNER OR HIS REPRESENTATIVE.

V. SERVICE, PARTS, AND MANUALS

THIS SECTION IS NOT APPLICABLE.

VI. ACCEPTANCE EVALUATION AND QUALITY ASSURANCE

A. CONTRACTOR INSPECTION AND TESTING

THE CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE OF ALL INSPECTION AND TEST REQUIREMENTS IN ORDER TO DETERMINE THAT THE TABLEWARE OFFERED MEET THE REQUIREMENTS OF THIS SPECIFICATION PRIOR TO OFFERING THE TABLEWARE FOR STATE INSPECTION AND ACCEPTANCE.

1. CERTIFICATION

PROPOSALS SUBMITTED IN RESPONSE TO THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE ACCOMPANIED BY A CERTIFIED STATEMENT INDICATING THAT REPRESENTATIVE SAMPLES OF THE TABLEWARE OFFERED HAVE PASSED THE TEST PROVISIONS THAT ARE LISTED IN SECTION VI AND HAVE ALSO PASSED ALL INSPECTION THAT IS NECESSARY TO DETERMINE THE TABLEWARE OFFERED MEET THE REQUIREMENTS OF THIS SPECIFICATION.

B. SAMPLING

SPECIMENS SHALL BE CHOSEN AT RANDOM FROM EACH LOT OF THE SAME SHAPE AND SIZE FOR TESTING TO DETERMINE THE CONFORMANCE OF THE TABLEWARE WITH EACH OF THE REQUIREMENTS STATED BELOW.

1. SAMPLE SIZE AND ACCEPTANCE

THREE SPECIMENS SHALL BE USED FOR EACH OF THE TESTS DESCRIBED BELOW. IF ONE OF THE THREE SPECIMENS FAILS TO MEET THE REQUIREMENTS OF A GIVEN TEST, THREE ADDITIONAL SPECIMENS SHALL BE SUBJECTED TO THAT TEST, ALL OF WHICH SHALL BE REQUIRED TO PASS THE TEST IN ORDER TO INDICATE CONFORMANCE OF THE TABLEWARE WITH THIS SPECIFICATION.

IF MORE THAN ONE OF THE ORIGINAL THREE SPECIMENS FOR A GIVEN TEST FAILS, THE TABLEWARE SHALL BE REPORTED AS FAILING TO CONFORM WITH THIS SPECIFICATION.

C. TEST PROCEDURE

1. VISUAL INSPECTION

THE SPECIMENS SHALL BE VISUALLY INSPECTED TO DETERMINE THEIR CONFORMANCE WITH THE REQUIREMENTS OF "DECORATIONS" UNDER III.D. ABOVE.

2. THICKNESS

THE THICKNESS OF THE TABLEWARE SHALL BE DETERMINED TO THE NEAREST 0.001 INCH, USING A SCREW THREAD COMPARATOR MICROMETER. SEE III.D. ABOVE.

3. RESISTANCE TO BOILING SULFURIC ACID

THE TABLEWARE SHALL SHOW NO CHALKING, DEFINED AS A DRY CHALKLIKE APPEARANCE OR DEPOSIT ON THE SURFACE, OR LOSS OF GLOSS THAT IS READILY PERCEPTIBLE WITHOUT CLOSE EXAMINATION, WHEN TESTED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

TEST MATERIALS:

- a) AN AQUEOUS SOLUTION OF SULFURIC ACID 0.8 PERCENT BY WEIGHT IS REQUIRED. THIS SOLUTION CAN BE OBTAINED FROM A LOCAL DRUG OR CHEMICAL SUPPLY HOUSE.
- b) A PORCELAIN-ENAMELED OR STAINLESS-STEEL PAIL, WITH COVER, ABOUT 2- TO 3-QUART CAPACITY SHOULD BE USED. ENAMELED WARE MUST NOT BE USED IF THE INSIDE SURFACE IS CHIPPED, EXPOSING BARE METAL.
- c) A HEATER, PREFERABLY A GAS BURNER OF ABOUT 4 TO 5 INCHES IN DIAMETER, SHOULD BE USED. THE HEATER SHOULD HAVE SUFFICIENT CAPACITY TO KEEP THE ACID SOLUTION BOILING FAIRLY VIGOROUSLY.

PROCEDURE:

- a) THREE UNTESTED SPECIMENS SHALL BE USED FOR THIS TEST. FROM THE MOLDING TO BE TESTED, CUT A CROSS-SECTION STRIP ABOUT 3 INCHES WIDE, IF A PLATE, DISH, OR SAUCER IS BEING TESTED. IF TESTING A CUP, CUT A SECTION OF ABOUT ONE-HALF OF THE MOLDED PART, TAKING FOR THE TEST THAT PART WHICH INCLUDES THE HANDLE.

THE ENTIRE PIECE OF TABLEWARE MAY BE USED IF IT IS DESIRED NOT TO DESTROY IT BY CUTTING. HEAT TO BOILING A FRESH PORTION OF ACID SOLUTION, KEEPING THE CONTAINER COVERED. IMMERSE THE TEST PIECES AND RE-COVER THE VESSEL. KEEP BOILING. REMOVE THE TEST PIECES AFTER 10 PLUS/MINUS 0.5 MINUTES OF BOILING, RINSE IN COLD WATER, AND AIR-DRY FOR 15 TO 30 MINUTES. INSPECT EACH SPECIMEN FOR CONFORMANCE WITH THIS TEST REQUIREMENT.

PRECAUTIONS:

- a) THE ACID SOLUTION IS CORROSIVE, AND CARE SHOULD BE TAKEN THAT IT IS NOT SPLASHED ON ONE'S PERSON OR CLOTHING, OR ABOUT THE PREMISES. THE CONCENTRATED ACID SHOULD BE ADDED TO COLD WATER IN PREPARING THE SOLUTION. DO NOT ADD WATER TO THE ACID BECAUSE OF THE VIOLENT CHEMICAL REACTION.
- b) USE FRESH ACID SOLUTION FOR EACH TEST RUN.
- c) THE SOLUTION MUST BE KEPT BOILING DURING THE 10 MINUTES OF THE TEST. IF TOO MANY TEST PIECES ARE PUT IN AT ONCE, THE SOLUTION WILL BE COOLED TO SUCH AN EXTENT THAT IT WILL STOP BOILING, THUS ENDANGERING THE ACCURACY OF THE TEST. BY TRIAL AND ERROR, ONE CAN DETERMINE THE MAXIMUM NUMBER OF PARTS WHICH CAN BE PROPERLY TESTED AT ONE TIME.
- d) TEST PIECES CAN BE ATTACHED TO FAIRLY HEAVY CORD OR STRING, AND BE REMOVED BY THIS MEANS WHEN THE TEST IS COMPLETED.
- e) TEST PIECES SHOULD BE KEPT SEPARATED DURING BOILING SO THAT THE ACID BATH HAS FREE ACCESS TO ALL SURFACES.
- f) DISPOSE OF WASTE ACID SOLUTION BY ALLOWING IT TO COOL, THEN FLUSHING IT IN AN ADEQUATE DISPOSAL SYSTEM, USING PLENTY OF WATER.

4. RESISTANCE TO BOILING WATER

THE TABLEWARE SHALL NOT DEVELOP CRACKS, NOR SHOW SURFACE CHALKING OR OTHER DEFECTS THAT MIGHT IMPAIR THE SERVICEABILITY OR APPEARANCE OF TABLEWARE WHEN TESTED AS FOLLOWS:

THREE SPECIMENS WHICH HAVE NOT BEEN SUBJECT TO ANY PREVIOUS TEST SHALL BE USED FOR THIS TEST. THE SPECIMEN OF TABLEWARE SHALL BE PLACED IN BOILING WATER FOR 30 MINUTES, REMOVED, AND ALLOWED TO STAND FOR ONE HOUR AT ROOM TEMPERATURE. THIS PROCEDURE SHALL BE IMMEDIATELY REPEATED THREE TIMES TO GIVE A TOTAL OF FOUR SUCH CYCLES. THE TABLEWARE SHALL THEN BE ALLOWED TO STAND FOR 48 HOURS IN AIR AT ROOM TEMPERATURE. INSPECT EACH SPECIMEN OF THE TABLEWARE FOR CONFORMANCE WITH THIS TEST. IN DISPUTED CASES THE SPECIMEN SHOULD STAND FOR 48 HOURS IN AIR AT A TEMPERATURE MAINTAINED AT 23 PLUS/MINUS 2 DEGREES C. (73.4 PLUS/MINUS 3.6 DEGREES F.) AND A RELATIVE HUMIDITY OF 50

PLUS/MINUS 5 PERCENT, AND THEN INSPECTED FOR CONFORMANCE WITH THIS TEST.

5. RESISTANCE TO DRY HEAT

THE TABLEWARE SHALL SHOW NO CRACKS, WARPAGE, OR OTHER DEFECTS THAT MIGHT IMPAIR THE SERVICEABILITY OF APPEARANCE OF THE TABLEWARE, WHEN TESTED AS FOLLOWS:

THREE SPECIMENS WHICH HAVE NOT BEEN SUBJECTED TO ANY PREVIOUS TEST SHALL BE USED FOR THIS TEST. PLACE THE TABLEWARE IN A CIRCULATING-AIR OVEN FOR EIGHT HOURS AT 76.7 PLUS/MINUS 2.8 DEGREES C. (170 PLUS/MINUS 5 DEGREES F.) COOL TO ROOM TEMPERATURE, AND INSPECT FOR CONFORMANCE WITH THIS TEST. THE METHODS OF TEST ARE ESPECIALLY DESIGNED SO THAT THEY CAN BE CONDUCTED BY PRODUCERS, DISTRIBUTORS, OR USERS WITHOUT THE USE OF COSTLY EQUIPMENT, AND BY PERSONNEL THAT NEED NOT BE SPECIALLY TRAINED. MEETING THE TESTS DESCRIBED ABOVE IS EVIDENCE OF PROPER MOLDING.

EACH PRODUCER SHALL KEEP SUCH ESSENTIAL RECORDS AND OTHER INFORMATION TO DOCUMENT HIS CLAIM THAT THE REQUIREMENTS OF THIS STANDARD ARE MET WITH A HIGH DEGREE OF ASSURANCE. THIS REQUIREMENT DOES NOT PRECLUDE ADDITIONAL SAMPLING AND TESTING THAT MAY BE AGREED UPON BETWEEN THE PARTIES CONCERNED TO VERIFY THE VALIDITY OF THE CLAIM.

VII. DELIVERY AND PAYMENT

DELIVERY OF AND PAYMENT FOR TABLEWARE UNDER THIS SPECIFICATION SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS STATED IN THE INVITATION FOR BIDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PACKING, PACKAGING, OR PROTECTION REQUIRED TO INSURE DELIVERY IN AN UNDAMAGED CONDITION.

VIII. ORDERING DATA

PURCHASERS SHOULD EXERCISE ANY DESIRED OPTION OFFERED HEREIN AND SHOULD SPECIFY THE FOLLOWING IN THE REQUISITION AND INVITATION FOR BIDS:

1. TITLE, NUMBER, AND DATE OF THIS SPECIFICATION
2. CLASS