

**SPECIFICATION  
FOR  
TABLE, WOOD, ELEMENTARY AND ALL-PURPOSE**

(This interim specification is released for procurement purposes until revised rescinded.)

**SCOPE**

This specification covers elementary and all-purpose wood tables of the conventional design.

**I. CLASSIFICATION**

The tables covered by this specification shall be classified in the following types:

- Type I - Minimum top thickness of 13/16"
- Type II - Minimum top thickness of 1 1/8"

**II. APPLICABLE STANDARDS**

The following documents of issue in effect on the date of the Invitation for Bids shall form a part of this specification:

NEMA LD-3 - High Pressure Decorative Laminates  
National Electrical Manufacturers Association (NEMA)  
2101 L Street, NW  
Washington, DC 20037

**III. REQUIREMENTS**

**A. MATERIALS**

1. Wood (Species)

The wood shall be of the following:

- a) Hard Maple - Acer Saccharum
- b) Hard Birch - Betula Lutea or Betula Lenta
- c) Hard Beech - Fagus Grandifolia
- d) Hard Oak - Quercus (genus)

2. Glues

The glues shall be with good commercial practice so that the glue joints are as strong as the wood.

3. **Glides**

The glides shall be nickel-plated, case-hardened, and rubber cushioned.

- a) The color and appearance of the finished furniture shall be within the tolerances defined by the standard control panels for the furniture on contract. The standard control panels to be furnished by the contracting agency. The finish shall be natural but can be toned or stained for uniformity.
- b) The finish shall be smooth and uniform and shall contain no foreign matter or packing marks.

**B. CONSTRUCTION**

1. **Legs**

The legs shall be smoothly rounded, slightly tapered or straight without taper. Legs shall be equipped with full size, case-hardened rubber cushioned glides. Legs shall be securely fastened to the rails with heavy steel corner blocks bolted to each post.

2. **Rails**

Rail edges shall be smoothly rounded. If necessary adequate rail and top support must be provided to prevent swaying or sagging of the table during normal use.

3. **Tops**

The tops shall be plastic, hardwood banded and bull nose construction. Oak or maple tops may be optional. The tops shall be securely fastened to all four rails and cross support by means of screws.

- a) Solid tops shall be made of tongue and grooved or straight joint edge-glued Beech, Oak, or Maple, 13/16" minimum thickness for Type I and 1 1/8" minimum thickness for Type II.
- b) Plastic surfaces shall be in accordance with the NEMA LD-3-1980 standard or issue in effect at the time of the bid. Plastic thickness shall be not less than .050". The plastic shall be General Purpose Decorative Laminate, Grade GP50. Backs shall be equal to Grade BK20.

The plastic surface described above and backing sheet shall be glued on a plywood or high density particleboard core so that the minimum finished thickness shall be not less than 13/16" for Type I and 1 1/8" for Type II. There shall be not less than five individual veneer plies of hardwood.

(NOTE: If particleboard is used as core for the tops, the manufacturer must guarantee the top against loosening, breaking, or any other condition causing the top to be unsatisfactory for a period of three years from the date of delivery).

4. **Dimensions**

All dimensions except top thickness are to be the same for both Type I and Type II tables:

<u>DESCRIPTION</u>	<u>DIMENSION</u>
Overall Top Height	20" - 30"
Top Sizes -a	36" - 36"
b	42" round
c	48" round
d	30" x 24"
e	30" x 60"
f	34" x 60"
g	30" x 72"
h	36" x 72"
Rails - Width	4" minimum
Thickness	3/4" minimum
Center Support - Width	4" minimum
Thickness	3/4" minimum
Posts	1 3/4" sq. minimum
Diameter of glides	1 1/16" minimum

**IV. WARRANTY**

The contractor warrants to the owner that all wood tables 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 three years from date of written acceptance. Such replacement shall be free of any charge to the owner or his representative.

**V. SERVICE, PARTS, AND MANUALS**

None required for this specification

**VI. ACCEPTANCE EVALUATION AND QUALITY ASSURANCE**

**A. SAMPLING FOR LOT ACCEPTANCE**

**1. Contractor Inspection**

Unless otherwise specified herein, the supplier is responsible for the performance of all inspection requirements prior to submission for state inspection and acceptance.

**2. Classes of Inspection**

All examination and testing shall be to determine conformance to the requirements of this inspection to serve as a basis for acceptance.

3. Inspection Lot

For purpose of sampling and testing, a lot shall consist of all tables offered for delivery for one location at one time.

**B. INSPECTION**

The field inspector shall pick at random one wood table from a shipment for test purposes.

**C. LOT ACCEPTANCE**

The sample selected by the field inspector shall be subjected to tests herein specified. If the sample fails in one or more of these tests, the lot shall be rejected. Rejected lots may be resubmitted for acceptance tests provided the contractor has reworked all nonconforming materials.

**D. TEST PROCEDURE**

The following tests are to be performed after the furniture (or panels) has been aged at least 10 days at not less than 70°F.

1. Print Test

Place a piece of surgical gauze folded twice to form a pad approximately 3"x3" on the finish surface (at room temperature). Apply a weight equivalent to two pounds per square inch. Allow to remain in contact for 24 hours. Remove weight and gauze. One hour later, examine. There shall be no evidence of printing except those marks which can be easily polished out.

2. Hot Water Test

Pour 25cc of boiling water in a pool on the finish surface. Allow to cool and blot up. Polish with a clean, dry cloth. There shall be no evidence of whitening or spotting.

3. Cold Water Test

Apply a pool of 2cc of cold water to the finish surface. Cover with a 3" watch glass. Allow to remain in contact for 24 hours. Remove watch glass and blot up water. One hour later, polish with a clean, dry cloth. There shall be no evidence of whitening, spotting, or checking.

4. Adhesion Test

Using a single edge razor blade, make cuts through the film into the wood 1" long, 1/8" apart at an angle 45° to the grain on the wood. Then repeat at a 90° angle to the first cuts, forming 1/8" squares. The squares so formed should adhere to the wood and not chip off or break in a brittle manner when rubbed with a cloth.

5. Impact Test

Drop a one pound steel ball on the finish from a height of one foot. Examine the crater so formed. Finish shall not be shattered or loosened.

6. Smear Test

Make smears on the finish surface with lipstick and carbon paper. Smears shall be easily removed with a cloth dampened with VM&P Naphtha.

7. Wood Classroom Furniture Finish - Tri-Sodium Phosphate (Detergent) Test

A 5% solution of tri-sodium phosphate shall be confined by means of a putty ring over an area of approximately 3" square for a period of 24 hours. Cover the solution and putty ring with a piece of glass to prevent evaporation. At completion of test, the solution and putty ring shall be removed and the finished surface wiped dry and clean with a cloth. There shall be no permanent discoloration or softening of film.

8. Ink Test

Apply a pool of ½"cc of ink to the finish surface. Allow to remain in contact 30 minutes. Blot and wipe clean with a damp cloth. There shall be no staining.

9. Chemical and Stain Resistance Test

The finish shall be resistant to staining and spotting from contact with various liquids, foods, etc. The following group being representative:

- |                 |                 |
|-----------------|-----------------|
| a. Coffee       | e. Tomato Juice |
| b. Vinegar      | f. Butter       |
| c. Lemon Juice  | g. Milk         |
| d. Orange Juice | h. Tea          |

Place several drops or a daub of each material on the finish being tested. Cover with a watch glass. Allow to remain in contact for 18 hours. Remove materials with a damp cloth. After a two hour recovery period, examine. There shall be no spotting, staining or discoloration.

The above tests are of such a nature that they may be performed in the field. In addition, the finish shall meet the following laboratory requirements after at least 10 days aging at not less than 70°F.

10. Cold Check Test

Finish shall withstand 10 hot to cold cycles without cracking. One cycle is as follows:

- a) One hour at 120°F.
- b) Followed immediately by one hour at 5°.
- c) One hour at room temperature, after which panel is examined (preferably while holding the panel at a 45° angle to the rays of bright sunlight or some other strong source of light) for checks in the finish.

NOTE: Minor edge checks and veneer checks should be discounted.

11. Abrasion Test

A wood block with rounded edges approximately 4"x6" faced with 1.05-54 sateen and loaded with a total weight of ten pounds shall be moved reciprocally across the finish surface, the pad being saturated with Dutch Cleanser paste (20 grams of Dutch Cleanser in one ounce, liquid measure, of tap water). Rewet with paste every 50 reciprocations. The finish shall withstand at least 300 motions in each direction without being worn through or cut through to wood.

**E. SAMPLES**

If samples with the bids are necessary, they shall be specifically asked for in the Invitation for Bids and the particular purpose to be served by the bid sample shall be stated.

**VII. DELIVERY AND PAYMENT**

Delivery of and payment for all wood tables purchased under this specification shall be in accordance with the terms and conditions of the Invitation for Bids. The contractor shall be responsible for any packing, packaging, or protection required to insure safe delivery in an undamaged condition.

**VIII. ORDERING DATA**

1. Title, number, and date of this specification
2. Type and size of table desired
3. Species of wood desired

This interim specification shall, until revised or rescinded, apply as far as practicable, in terms and effect to every state purchase of the commodity described herein; however, modifications may be made by the Secretary of Administration prior to the adoption of revisions.