

COMMERCIAL ITEM DESCRIPTION

CONTAINERS, PLASTIC, MOLDED (FOR LIQUIDS, PASTES, AND POWDERS)

The General Services Administration has authorized the use of this commercial item description in preference to Federal Specification PPP-C-569, Type III, Class D, Grade FB and Class E, Grade FB.

This description covers a five gallon plastic container and a combination unit consisting of a five gallon plastic container with a weather-resistant, wax-resin-impregnated fiberboard box overpack.

Salient characteristics.

The plastic container shall be blow-molded or thermoformed of low or high density polyethylene. The properties of the polyethylene shall conform to those listed in the following table.

Properties of Polyethylene Compounds

Property	Low Density	High Density	Test Method (ASTM)
Specific gravity, 23° /23°C, range inclusive	0.910 to 0.925	0.941 to 0.965	D792
Melt index, maximum grams per 10 minutes	2.6	1.2	D1238
Tensile strength, minimum p.s.i. 23°C	1500	3000	D638
Ultimate elongation, minimum percent, 23°C	400	75	D638

The polyethylene shall be food and beverage grade. The polyethylene compound or a combination of compounds, with or without additives or other modifying substances, shall be in complete compliance with the Food and Drug Administration Regulations governing the raw materials permitted for the fabrication of packaging materials used in the packaging of food and beverage. Any compound, combination of compounds, additives, modifying substances, or special process intended to change the physical characteristics or capabilities of the plastic containers that is known to cause or contribute any toxic or other harmful effect to the food or beverage contained is prohibited notwithstanding that such compounds, combination of compounds, additives, modifying substances, or special process may not specifically be prohibited by the Food and Drug Regulations.

Construction. The low density plastic container shall have a minimum thickness of 0.010 inch. The high density plastic container shall have a minimum thickness of 0.015 inch with edges and corners rounded to a 1-1/2 inch minimum radius.

Design. The plastic container shall be rectangular in shape and shall be designed to accommodate a threaded closure opening with leak proof screw cap. In the case of the high density polyethylene container, an integrally molded handle shall be included on the top surface of the plastic container just behind the threaded opening. In the case of a low density polyethylene container, a handle shall be provided in the overpack top surface for ease of handling.

A-A-1235

Drop resistance test at low temperature. The plastic container shall be placed in a fiberboard shipping container (overpack). The plastic container shall be filled to 98 percent of capacity with liquid which is compatible with polyethylene and will remain liquid at 0° F. The filled shipping container shall then be sealed as for shipment and conditioned for 24 hours at 0° F. Immediately after conditioning, the sealed shipping container shall be dropped from height of 48 inches onto a steel, concrete, or stone surface of sufficient mass to absorb the shock without deflection so that the corner of the shipping container absorbs the full force of the fall. This test shall be repeated on top and bottom and on two other sides of the shipping container. The fall shall be a free fall, in that no ropes or other suspending media are attached to the shipping container during the fall.

Drop resistance test at room temperature. The plastic container shall be placed in a fiberboard overpack and shall be filled to 98 percent capacity with water. The filled shipping container shall then be sealed as for shipment and conditioned for 24 hours at 75° + 5° F. The sealed shipping container shall then be subjected to the same drop test as described in the low temperature drop test.

Drop resistance test at high temperature. The plastic container shall be placed in a fiberboard overpack. The plastic container shall be filled to 98 percent of capacity with water. The filled shipping container shall then be sealed as for shipment and conditioned for 72 hours at 92.5 + 2.5 percent relative humidity at a temperature of 125° + 5° F. The sealed shipping container shall then be subjected to the same drop test as described in the low temperature drop test.

Wet strength test, fiberboard overpack. The plastic container shall be placed in a water-resistance wax-resin-impregnated box, grade 275. The assembled container shall be filled to rated capacity with water at ambient temperature, closed, and prepared as for shipment. Each of the samples shall then be subject to a constant load of 250 pounds and soaked with water for one hour by directing a steady stream of water (1 gallon per minute minimum) against the sidewalls of the box. The prescribed load for 24 hours and then examined for top and bottom compression. The box must be supporting the load after the period, and there shall be no more than 1/2-inch vertical deflection.

Leakage test (room temperature). The plastic container selected for testing shall be filled with water which has been strongly colored with ink or other suitable coloring agent which is not a permeator of polyethylene; 1/10 of 1.0 percent Aerosol OT shall also be added to the water as a wetting agent. Caps shall be screwed down and tightened or spouts sealed, as applicable. The plastic container shall then be placed with the spout down upon a sheet of white blotting paper. Examine after 15 minutes. Discoloration of the paper by the colored water is regarded as failure of the test.

Workmanship. The containers shall conform to the salient characteristics of the commercial item description. Containers shall be free from any workmanship or design defects that affect appearance or serviceability.

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practical.

Preservation, packaging, packing, labeling, and marking. The preservation, packaging, packing, labeling and marking (other than special marking) shall be as specified in the contract or order. For military use, preservation, packaging, packing, and marking shall be in accordance to ASTM D 3951.

Special marking. All fiberboard boxes or other packing containers in which unfilled plastic containers are packed shall be clearly and permanently marked as follows:

FOOD AND BEVERAGE GRADE
"THESE CONTAINERS TO BE
USED WITH FOOD AND BEVERAGES"

Notes. The issue of ASTM standards on the date of the solicitation shall be used to determine compliance with requirements.

ASTM standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

MILITARY INTERESTS:

PREPARING ACTIVITY:

Military Coordinating Activity

GSA - FSS

Army - GL

Custodians

Army - GL

Navy - SA

Air Force - 69

Review Activities

Army - MD, EA

Navy - MS

User Activity

Navy - SH