Materials Used in Packaging

ANCHOR PACKAGING

Polypropylene (PP)

Use– The most common takeout packaging material, used for chicken roasters, deli tubs, bakery and microwaveable takeout containers. It is often used with an OPS (oriented polystyrene) dome. Although some companies such as Anchor, use polypropylene for domes and lids. It is also used for beverage containers and excellent for ready-to-heat.

Appearance– Usually made in black or clear. If clear, it's somewhat hazy. It can easily be made into many shapes, sizes and compartments and molded with design elements.

Properties– Very rigid, crack resistant, leak resistant. It can be film-sealed if the rim is wide enough. It can also be coated with anti-fog material to retain clarity.

Temperature Tolerance– Preferred material for microwave and hot case. It can resist temperatures up to 220° to 240°. Bones and high-fat foods that retain extra heat will not burn through.

Cost– Moderately priced. Not as expensive as CPET (crystalline polyethylene terephthalate).

Amorphous Polyethylene Terephthalate (APET/PETE/RPET)

Use– Versatile because one SKU can be used for sandwiches, salad, bakery, deli, produce and catering. Popular for platter domes, cake and pie packages; hinged lid for sandwiches.

Appearance– Crystal clear, excellent for merchandising. It can also be black.

Properties– Strong and pliable. Offers superior leak resistance and can be coated with anti-fog material to retain clarity when used in cold cases. It can be made hinged or two-piece. It is cut resistant and can be used for drinking cups.

Temperature Tolerance– Best for cold case and room temperature applications. It can withstand refrigerated and freezer temperatures from -10°F to 150°F. It should not be put in an oven, hot case, or a microwave.

Cost– Moderately priced.

RPET indicates a percentage of the material used to make the product includes post-consumer recycled material

Oriented Polystyrene (OPS)/High-Impact Polystyrene (HIPS)

Use– Versatile because one SKU can be used for sandwiches, salad, bakery, deli, produce and catering. Popular for platter domes; hinged lid for sandwiches.

Appearance– Crystal clear, excellent for merchandising. It can also be black.

Properties– Stiff but brittle. Offers superior leak resistance and can be coated with anti-fog material to retain clarity when used in cold cases or for hot food. It can be made hinged or two-piece. It is cut resistant and too brittle for drinking cups. Not as strong as APET (amorphous polyethylene terephthalate).

Temperature Tolerance– Best for cold case and room temperature applications. It can withstand temperatures up to 190°. It can hold hot foods, but should not be put in an oven, hot case, or a microwave (except as a dome).

Cost– Moderately priced.

Foamed Polystyrene (EPS)

Use– Used for clamshells and other hinged-lid containers, tableware, meat trays. Often used for restaurant doggie bags. Used for coffee and other hot beverages.

Appearance– It can be white, black, vanilla, green, pink, yellow or blue.

Properties– It has excellent heat retention and cold insulation. Strong, lightweight, won't allow soak-through. Snap on domes work well on plates for table-ready presentation. Comes in a variety of grades.

Temperature Tolerance– Moderate temperature resistance. It can hold hot foods and is microwaveable. Certain hot foods such as bones of ribs and pork can burn through.

Cost– Very economical, a good choice when merchandising is not needed.

Foamed Polypropylene (PP-Foam)

Use– Good for clamshells and other hinged-lid containers, tableware, and meat trays. This is a relatively new product and will become more used by various customers. It has good barrier properties.

Appearance– Usually white but can be other colors.

Properties– Excellent heat retention and cold insulation. Strong, lightweight, and won't allow soak-through. It has snap on domes that work well on plates for table-ready presentations. Comes in a variety of grades. It can also be heat-sealed with film.

Temperature Tolerance– It can hold hot foods and is microwaveable.

Cost– Moderately priced.

Crystalline Polyethylene Terephthalate (CPET)

Use– Frozen dinner trays and takeout entree containers that need to be heated. Good for merchandising in the freezer, hot or cold cases.

Appearance– Often black, but can be other colors.

Properties– A lot of design flexibility, it can be ridged, indented, and formed into multi-compartmented units. It has good crack resistance when frozen.

Temperature Tolerance– Dual-ovenable with wide temperature range. It can be heated in a regular oven to 400° or frozen to -40°.

Cost– Generally the most expensive of all the materials listed.

Polyvinyl Chloride (PVC)

Use– Especially good for merchandising cold foods, snack items and bakery items. Used for deli, produce, and catering. It is a good clamshell for sandwiches. It is used as domes for cakes, pies, and party platters. It is also good for drinking cups and excellent for frozen foods.

Appearance– PVC has extremely high clarity.

Properties– PVC is durable, tough, and clear. It is flexible Coke-bottle material and creates durable hinges. It can also be made into two-piece containers. It will flex rather than crack under the weight of food and resists cracking in the freezer.

Temperature Tolerance– Moderate temperature resistance. PVC will start to melt before 140° and cannot be used in the oven, hot case, or microwave.

Cost– Economically priced.

Molded Fiber

Use– Used for plates, beverage carriers, fruit trays, and French-fry boats.

Appearance– Molded Fiber may be off white or gray, depending on the amount of recycled newspaper content (plates that touch food directly must be made with virgin paper stock).

Properties– It has superior strength and cut resistance. It can be made to absorb grease from fried foods and to repel oil and water to prevent soak-through. It can be filmed over with PET.

Temperature Tolerance– It can be microwaved but not for use in the conventional oven.

Cost– Moderately expensive.

Polyethylene Terephthalate (PET)

Use– Especially good for merchandising cold foods, snack items and bakery items. It is used for deli, produce, and catering. It is a good clamshell for sandwiches and used as domes for cakes, pies, and party platters. PET is also good for drinking cups and excellent for frozen foods.

Appearance– PET has high clarity and can be colored.

Properties– PET is durable tough and clear.

Temperature Tolerance– PET has a very low temperature resistance. It starts to melt before 140° and cannot be used in the oven, hot case, or microwave.

Cost– Moderately priced.

Pressed Paperboard

Use– Used in frozen applications or fresh, film-sealed meals. Ideal for high-speed equipment processing in mass production. It is also used in supermarkets for ready-to-cook meals and other takeout.

Appearance– It has terrific printed graphic capability, and good for branding. It can be made in a variety of colors and patterns.

Properties– Paperboard has superior strength when made with a uni-body construction (no seams). It can be used with film seal or board lid but not as tight a seal with plastic dome lid snapped on.

Temperature Tolerance– One of the widest temperature ranges available. It can be microwaved or placed in the oven up to 400° for one hour and frozen to -40°.

Cost– Moderately priced.

Aluminum

Use– Used for bulk items such as steam-table pans, round carryout containers with board lid or clear dome, as well as many bakery containers, party platters and frozen entrees.

Appearance– Aluminum is silver or may be coated in colors. New innovations have created smooth-wall containers for a more upscale look.

Properties– Aluminum retains heat and cold well, and is crack-resistant in the freezer. It is highly leak-resistant and offers a variety of lidding options such as clear domes, laminated board, aluminum hood, and film lid for specialty cases. It also comes in a variety of gauges.

Temperature Tolerance– Extremely versatile, it can go from freezer to oven to serving table. It can withstand very high heat and is microwaveable under certain conditions.

Cost– Inexpensive, except with specialty coatings.