

LECTURE 2

2.0 MODERN PACKAGING MATERIALS AND PACKAGE FORMS

2.1 A RIGID PACKAGING MATERIALS AND PACKAGE FORMS

2.1.1 GLASS CONTAINERS

Glass = Limestone + Sand + Soda Ash + Alumina

Colorants may be added to the melt or introduced later

ADVANTAGE

- It is strong, rigid, chemically inert
- It is an excellent barrier against solids, liquids and gases
- It does not deteriorate appreciably with age
- It is low-cost (7/1b in finished delivered container)
- Its transparency (gives excellent product visibility)
- Attractive finishes of a variety of types are possible
- Extremely versatile, as to size and shape

DISADVANTAGES

- Weight – heavy
- Fragility in transport, Not easy to dispose of

2.2 TYPES OF GLASS CONTAINERS

	(i)	(ii)	(iii)	(iv)	(v)	(vi)	
	BOTTLES	JARS	TUMLERS	JUGS	CARBOYS	VIALS	& AMPOULES
Shape	High	Wide-	Open-	Large	Heavy	Small	container
Uses	usage	monthed	ended	No	sized	shipping	principally
	narrow	short-	necks at all	Bottles	containers	pharmaceuticals,	for
	necks	necks	Jams &	with	shaped like	Spices,	food
	large	liquids	Jellies	handle	short	colorants	
	bodies	solids		short	necked		
	liquids	or semi-		narrow-	bottles	3	
	small	size liquid		necks	gallons	&	
	solids	sauces &		used for	larger		
		pastes		liquids	capacity		
				in ½	used with		
				gallon	wooden		
				& larger	crate		
				sizes	Holder &		
					of the		
					protective		
					frames		

2.3 CONSIDERATIONS IN CHOOSING GLASS CONTAINERS FOR FOOD

DIMENSIONS AND “FINISH”:- Ensure that volume is adequate product is easily filled and dispensed

Proper closure can be selected

“FINISH”:- Refers to type of and dimensions of neck and mouth of container i.e
THREAD, LUD, FRICTION, SNAP-ON, ROLL-ON

Many standard finishers are listed by the glass containers manufactures institute

COLOUR:- Influence type of light reaching the food

ABILITY TO RESIST THERMAL SHOCK:- This is important in heating and cooling operations.