

## 1 BOTTLE MATERIAL

### CLEAR GLASS

Clear soda lime glass has an excellent corrosion resistance to most chemicals. Its thickness enables a slight mechanical shock resistance. It has only medium thermal properties given by a 120 °C (250 °F) maximum temperature and a 40 °C (100 °F) thermal shock resistance.

### AMBER GLASS

Amber soda lime glass has an excellent corrosion resistance to most chemicals. Its thickness enables a slight mechanical shock resistance. It has only medium thermal properties given by a 120 °C (250 °F) maximum temperature and a 40 °C (100 °F) thermal shock resistance. This glass has the property of totally protecting the bottle content from ultraviolet rays and is therefore ideal for light-sensitive compounds.

### BOROSILICATE GLASS

Clear borosilicate glass is highly resistant to water, neutral and acid solutions, concentrated acids and their mixtures, chlorine, bromine, iodine and organic materials. It is considered to be an all-round industrial glass in all fields of applications where maximal thermal shock resistance is required.

The temperature resistance gives a maximum temperature of 500 °C (900 °F).

### POLYETHYLENE

High density polyethylene is the most versatile and widely used plastic. It is translucent to opaque, robust enough to be virtually unbreakable, at the same time slightly flexible. Polyethylene is resistant to a great many chemicals at room temperature (strong oxidizing agents being the main exception). The temperature resistance gives a maximum temperature of 110 °C (230 °F) continuously and 120 °C (250 °F) for short periods.

### POLYPROPYLENE

Polypropylene is a translucent material, which replaces polyethylene when higher thermal resistance for sterilizing and autoclaving is required given a maximal temperature of 135 °C (275 °F) and a 120 °C (250 °F) thermal shock resistance. It is particularly frequently used for sterilization under clinical or similar circumstances. Although it has excellent mechanical properties, the bottles of this material are breakable.

### SS 316

Steel (AISI SS 316) bottles have the highest thermal and mechanical resistance, they are unbreakable. The chemical resistance is high or very good for most chemicals. The major disadvantage is the non-visibility of the contents (a DOPAK® fixed volume sampler should be used with SS316 bottles). Other materials such as Monel, Hastelloy etc. are available.



## COATED GLASS

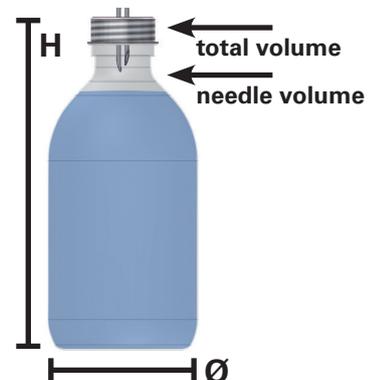
Glass bottles can be coated with plastic material to provide a safety feature against breakage. In case the container is dropped, the coating makes it less likely for the bottle to break. If it does break, the content is seldom spilled because content and glass fragments are caught inside the protective coating. All bottle volumes, except 2 cc, can be supplied with a plastic coating. The temperature resistance gives a maximum temperature of 70°C (160°F).

## 2 SPECIFICATIONS

Material	Part no.	Volume (cc)			Dimensions (mm)		Cap size	Max temperature	
		Nom.	Max.	Needle	Ø	H		(°C)	(°F)
Clear glass	1114000	1	2	1	12	39	pp12	120	250
	1115400*	2	2	1	12	39	pp12	120	250
	1115000	60	64	60	39	93	pp25	120	250
	1110100	100	114	111	52	97	pp28	120	250
	1114300	300	315	309	65	151	pp28	120	250
	1114400	500	509	502	77	178	pp28	120	250
	1114700	1000	1050	1040	98	217	pp28	120	250
	1113900	300	333	328	67	167	pp36	120	250
	1116300	500	603	592	78	206	pp36	120	250
	Amber glass	1117300	5	5	5	20	48	pp18	120
1117400		60	64	60	39	93	pp28	120	250
1110900		100	114	111	52	97	pp28	120	250
2011865		300	315	309	65	151	pp28	120	250
1111100		500	509	502	77	178	pp28	120	250
1111200		1000	1050	1040	101	207	pp28	120	250
Borosilicate glass	1114500	50	69	65	46	89	GL32	500	900
	1111300	100	131	119	56	100	GL45	500	900
	1111400	250	298	287	70	138	GL45	500	900
	1111500	500	608	597	86	181	GL45	500	900
Boston round clear	1111600	1000	1135	1125	101	225	GL45	500	900
	1950000	2 oz	2 1/8	1 15/16	39	94	pp20	120	250
	1950100	4 oz	4 1/4	4 1/16	48	112	pp22	120	250
	9669000	8 oz	8 1/2	8 1/8	60	136	pp24	120	250
	9686000	16 oz	16 31/32	16 1/4	75	168	pp28	120	250
Boston round amber	9687000	32 oz	33 59/64	32 5/8	94	206	pp33	120	250
	9688000	8 oz	8 1/2	8 1/8	60	136	pp24	120	250
	9716000	16 oz	16 31/32	16 1/4	75	168	pp28	120	250
	9713000	32 oz	33 59/64	32 5/8	94	206	pp33	120	250
French square	1950200	2 oz	2 1/8	1 15/16	39	87	pp28	120	250
	1950300	4 oz	4 1/4	4 1/16	45	114	pp33	120	250
Polyethylene	1117500	100	106	93	50	91	pp28	120	250
	2001154	150	170	165	50	118	pp28	120	250
	1111900	150	170	165	50	109	pp28	120	250
	1112000	250	281	270	60	143	pp28	120	250
	1118300	500	565	540	75	165	pp28	120	250
	1112100	500	565	540	75	161	pp28	120	250
	1118100	1000	1045	1030	90	202	pp28	120	250
Polypropylene	9111700	60	64	60	39	77	pp33	120	250
	2001153	150	170	165	50	118	pp28	135	275
	1112500	150	170	165	50	109	pp28	135	275
	1112600	250	281	270	60	143	pp28	135	275
	1112700	500	565	540	75	161	pp28	135	275
	1118200	1000	1045	1030	90	202	pp28	135	275
	2000353	60	64	60	39	80	pp33	135	275
	9112400	60	64	60	39	77	pp33	135	275

- All above mentioned bottles can be supplied with a plastic-coating except 2 cc bottles (max. temp. 70 °C/160 °F).
- We can supply SS bottles in all volumes.
- Needle volume is determined using a 1.35 mm process needle.
- \*) Bottle supplied with crimp cap.
- Total volume = total volume of bottle.
- Needle volume = max. allowable filling level of bottle (up to vent needle to avoid overfilling).

For more information please contact our sales department at Bergschenhoek or Houston or your local representative.



**Dopak Inc.**  
Houston, Texas 77041, USA  
Phone 713-460-8311  
Fax 713-460-8578  
E-mail info@dopak.com

**Dovianus BV**  
Bergschenhoek, The Netherlands  
Phone +31 10 524 20 00  
Fax +31 10 524 20 29  
E-mail info@dopak.nl

Your local representative