

### LLG - Cap types

#### Aluminum Crimp Caps, centre hole

				
<b>Size</b>	<b>8 mm</b>	<b>11 mm</b>	<b>13 mm</b>	<b>20 mm</b>
Size centre hole	4 mm centre hole	5.5 mm centre hole	6 mm centre hole	10 mm centre hole
Material	Aluminum	Aluminum	Aluminum	Aluminum
Lacquer	clear	clear, red, blue, green, gold	clear, red, blue, green, gold	plain, red, blue, green, gold

#### Special Aluminum Crimp Caps



						
<b>Size</b>	<b>11 mm</b>	<b>13 mm</b>	<b>13 mm</b>	<b>20 mm</b>	<b>20 mm</b>	<b>20 mm</b>
Type of Cap	Centre hole Cap	Centre Tear Off Cap	Complete Tear Off Cap	Centre Tear Off Cap	Complete Tear Off Cap	Headspace Cap*
Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Lacquer	clear	clear, red, blue, green, gold	clear, red, blue, green, gold	clear, red, blue, green, gold	clear, red, blue, green, gold	clear
Special features	with roll groove					

Headspace Cap\*: This cap has the function of a pressure release cap and is designed with special scorelines whose bridges break open at an internal vial pressure of  $3.0 \pm 0.5$  bar to let the excess pressure escape. It is comparable with the three component PerkinElmer Headspace Closure (Aluminum Crimp Cap with slits, metal star washer, liner with ears) which offers the same effect with a different technical design.

#### Magnetic Caps, centre hole

							
<b>Size</b>	<b>9 mm Screw Cap</b>	<b>11 mm Crimp Cap</b>	<b>20 mm Crimp Cap</b>	<b>20 mm Crimp Cap</b>	<b>20 mm Bimetal Crimp Cap</b>	<b>18 mm Screw Cap</b>	<b>18 mm Screw Cap</b>
Size centre hole	6 mm centre hole (GC)	5 mm centre hole (GC)	5 mm centre hole (HS)	8 mm centre hole (HS)	8 mm centre hole (HS)	8 mm centre hole (Universal)	Closed top Universal Screw Cap
Application	PP Screw Cap blue/ magn. overcap gold	magnetic gold	magnetic gold	magnetic Gold	Alu/magnetic red	(Headspace/SPME) magnetic silver	
Material	GC PAL	GC PAL,	CE			CTC Combi PAL	silver
Lacquer	Thermo Scientific TriPlus	Thermo Scientific Tri Plus	HS250/500/HS800, CTC 500	CTC Combi PAL	CTC Combi PAL	PerkinElmer Agilent G1888A	
			Fisons HS250/500 HS800				

#### PE-Caps for Crimp Necks

						
<b>Size</b>	<b>8 mm</b>	<b>9 mm</b>	<b>11 mm</b>	<b>13 mm</b>	<b>22 mm</b>	<b>22 mm</b>
Approp. Vial	For Crimp Neck ND8	For Crimp Neck ND8	For Crimp Neck and Snap Ring ND11	For Crimp Neck ND11	For HS Neck ND20	For Crimp Neck ND20
Size Cap	8 mm	9 x 5.9 mm	11 mm	13 x 7.5 mm	22 x 8.4 mm	22 x 9.1 mm
Size centre hole	with thinned penetration point	4 mm centre hole	with thinned penetration point	4.5 mm centre hole	4.3 mm centre hole	4.3 centre hole or 6 mm centre hole
Material, colour	PE, blue	PE, transparent	PE, blue	PE, transparent	PE, transparent Only for bevelled tops	PE, transparent only for flat DIN Crimp Necks!

The drawings of the caps are not actual size. They should only visualize the special features of certain types of caps.

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#### Screw Caps

				
<b>Size</b>	<b>8 mm</b>	<b>9 mm</b>	<b>10 mm</b>	<b>13 mm</b>
Approp. Vial Thread Cap Design Size centre hole Material, colour	Screw Neck Vials ND8 8-425 thread Closed or open top 5.5 mm centre hole PP, black or white	Short Thread Vials ND9 short thread, Closed or open top 6 mm centre hole PP, black, transparent, blue, red, yellow, green	Screw Neck Vials ND10 10-425 thread, Closed or open top 7 mm centre hole PP, black	Screw Neck Vials ND12 13-425 thread, Closed or open top 8.5 mm centre hole PP, black, white

				
<b>Size</b>	<b>15 mm</b>	<b>18 mm</b>	<b>20 mm</b>	<b>24 mm</b>
Approp. Vial Thread Cap Design Size centre hole Material, colour	Screw Neck Vials ND15 15-425 thread, Closed or open top, 9 mm centre hole PP, black, white	Screw Neck Vials ND18 18-400 thread, Closed or open top 12 mm centre hole PP, black	Screw Neck Vials ND20 20-400 thread, Closed or open top, PP, white	Screw Neck Vials ND24 24-400 thread, Closed or open top 12.5 mm centre hole PP, white

#### PE-Plugs for Shell Vials

						
<b>Size</b>	<b>8 mm</b>	<b>8 mm</b>	<b>8 mm</b>	<b>8 mm</b>	<b>12 mm</b>	<b>15 mm</b>
Vial/Plug combination Plug Size Material, colour Special Features	Plug 6 mm PE, transparent	Plug 8 mm PE, blue	Plug 8 mm PE, transparent with insertion barrier for Micro-Inserts	Plug 8 mm PE, transparent without insertion barrier for Micro-Inserts	Plug 12 mm PE, transparent	Plug 15 mm PE, transparent

#### Snap Ring Caps

	
<b>Size</b>	<b>11 mm</b>
Approp. Vial Cap Design Size centre hole Material Colour	Snap Ring Vials ND11 open top 6 mm centre hole PE transparent*, blue*, red, yellow, green

#### Snap Caps

			
<b>Size</b>	<b>18 mm</b>	<b>22 mm</b>	<b>28 mm</b>
Approp. Vial Cap Design Size Cap Material Colour	Snap Cap Vials ND18 closed top 19.8 x 5.2 mm PE transparent	Snap Cap Vials ND22 closed top 23.5 x 5.5 mm PE transparent	Snap Cap Vials ND28 closed top 29.7 x 5.6 mm PE transparent

- available as a hard or soft PE Caps
- Hard Cap: tighter, but not so easy to push on or to remove
- Soft Cap: convenient in handling, but not as tight

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**Product Information – Sample Requests – Price Enquiries?**  
Our Customer Service Team is always at your disposal for further questions.