

## Pano lug cap with PVC compound

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### Closure types



*TWS with step,  
without button*



*DTO without step,  
without button*



*TSB with step,  
with button*



*DOB without step,  
with button*

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### Type declaration

Closure type and diameter + 8-digit code:

- 1st digit = internal code
- 2nd digit = button function
- 3rd digit = compound type
- 4th digit = interior priming
- 5th digit = interior adhesive lacquer
- 6th digit = exterior basecoat
- 7th digit = number of print colours
- 8th digit = exterior protective lacquer

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## Regular lug cap

Closure diameter	77 mm	82 mm	89 mm	100 mm
Closure type	TWS, TSB	TWS, TSB	TWS, TSB	TWS, TSB
Jar finish	Acc. DIN EN ISO 9100 1-14			
Closure diameter max. [mm]	80.05	85.14	92.75	103.4
Closure height max. [mm]	11.1	11.1	11.95	14.0
<b>Composition</b>				
Plate	Tin plate acc. EN 10202:2001, tin weight 2.0 g/m <sup>2</sup> per side			
Sealing material	PVC sealing compound with food contact approval, designed for filling and subsequent treatment procedures, see application remarks			
Interior system	Multi-layer coating system, tailored to the specific filling, see application notes			
Exterior system	2-layer coating system (white, gold or clear)			
Printing	Acc. customer specifications			
<b>Packaging</b>				
Weight / closure	12.7 g	14.0 g	17.8 g	21.7 g
Box capacity / No.	1000	800	630	420
Weight / box	13.8 kg	12.2 kg	12.0 kg	10.0 kg
Closures / europallet (24 boxes)	24 000	19 200	15 120	10 080
Closures / one-way pallet (30 boxes)	30 000	24 000	18 900	12 600

All measurements and weights are approx. values and do not constitute specification details.

Additional types of closures can be supplied on request.

## Deep lug cap

Closure diameter	58 mm	66 mm	82 mm
Closure type	DTO, DOB	DTO, DOB	DTO, DOB
Jar finish	Acc. DIN EN ISO 9100 1-14		
Closure diameter max. [mm]	60.3	69.3	85.3
Closure height max. [mm]	15.05	15.3	15.05
<b>Composition</b>			
Plate	Tin plate acc. EN 10202:2001, tin weight 2.0 g/m <sup>2</sup> per side		
Sealing material	PVC sealing compound with food contact approval, designed for filling and subsequent treatment procedures, see application remarks		
Interior system	Multi-layer coating system, tailored to the specific filling, see application notes		
Exterior system	2-layer coating system (white, gold or clear)		
Printing	Acc. customer specifications		
<b>Packaging</b>			
Weight / closure	9.6 g	11.3 g	15.8 g
Box capacity / No.	1100	900	550
Weight / box	11.56 kg	11.17 kg	9.69 kg
Closures / europallet (24 boxes)	26 400	21 600	13 200
Closures / one-way pallet (30 boxes)	33 000	27 000	16 500

All measurements and weights are approx. values and do not constitute specification details.

Additional types of closures can be supplied on request.

## Interior system / Corrosion protection

The interior coating system is tailored to the corrosion protection for the specific filling.

Classification of filling goods		Epoxy lacquering code	Shelf life	BPA-NI lacquering code	Shelf life
S1	Dry, solid filling goods, no vinegar, no salt, no SO <sub>2</sub>	TT, TP	48 months	N7	48 months
	Aqueous filling goods, no vinegar, no salt, no SO <sub>2</sub>				
S2	Oily filling goods	TT, TP	48 months	N7	48 months
	Slight acetic filling goods (vinegar content <0.6%), no salt, no SO <sub>2</sub>				
S3	Filling goods without vinegar, salt <1.5%, no SO <sub>2</sub>	TT, TP	48 months	N7	48 months
	Low acetic filling goods (vinegar content <1.5%), salt <1.5%, no SO <sub>2</sub>				
S4	Filling goods without vinegar, salt <3.5%, SO <sub>2</sub> <20 ppm	UT, UP	48 months	Q7	48 months
	Acetic filling goods (vinegar content <3.5%), salt <3.5%, SO <sub>2</sub> <20 ppm				
S5	Neutral filling goods, salt <3.5%, SO <sub>2</sub> max. 80 ppm	VT, VP	48 months	Q7	24 months
	High acetic filling goods (vinegar content from 3.5%), salt <3.5%, SO <sub>2</sub> <80 ppm			-	-

The lacquering codations are internal codations. TT, TP, UT, UP and N7 are single protection lacquerings. VT, VP and Q7 are double protection lacquerings.

## Application remarks

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### Compound types

Identification	Application	Remark
B, X	Cold and hot filling, retorting: max. 95°C, 30 min, min. 5-7% head space	Plasticiser: ESBO
U	Hot filling, retorting: max. 121°C, 1 h, 2 bar counter pressure, minimum vacuum: -0.35 bar, maximum difference pressure: 1 bar, min. 7-9% head space	Plasticiser: ESBO
D	Hot filling, retorting: max. 121°C, 1 h, 2 bar counter pressure, minimum vacuum: -0.35 bar, maximum difference pressure: 1 bar, min. 7-9% head space	Plasticiser: AMG

At the initial filling stage, it is recommended to test suitability for the subsequent treatment procedure. Please request separate declaration of conformity for verification of food contact approval.

### Sealing

Can be used with all PANO DVV glass capping machines and all known steam vacuum capping machines from different manufacturers.

### Button function

Identification	
O	Without button
B	Button function

### Storage

Store in a dry place, temperature range +5°C to +30°C, for a maximum of 2 years after production date, stacking height: max. 2 pallets

If you have any questions, please contact our technical customer support.

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