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Creator:	Jana Schmitt	**Date of issue:**	2017-03-07	**Signature:**	i.A.
Reviewed by:	Norbert Buchta	**Effective from:**	2017-03-07		

1 Part Description

Chemical closure, thread size 45E (narrow neck) with cone, PTFE disc (KTE 45) assembled.



2 Material Composition

The information contained in this Specification in regards to materials and additives has been obtained either from the manufacturer or our suppliers. It is accurate at the time of publication and to the best of our knowledge. However Menshen cannot take any liability for the data or information contained therein. For further information or updates, Menshen recommends visiting the manufacturer's or supplier's website.

2.1 Raw Materials

Closure: Hostalen ACP 5331 H

Disc KTE 45: PTFE (Polytetrafluorethylen)

2.2 Additives

Additives are used to modify the characteristics of the plastics, which are used for molding closures in order to improve product performance or to change the aesthetics of the part.

2.2.1 Additive

See Specification Appendix 01

2.2.2 Color

See Specification Appendix 01

3 Product Property and Test Methods

3.1 Material

More information, current certificates and material data sheets are available via the following links or upon request:

https://www.lyondellbasell.com/en/products-technology/polymers/trade-name/hostalen/
Hostalen ACP 5331 H

3.2 Function / Test Methods

Unless otherwise specified, none of the tests should be conducted before the parts tested have been conditioned to standard ambient climate conditions (21°C ± 3°C and 30% - 60% relative air humidity).

3.2.1 Visual inspection

3.2.2 Functional inspection

3.2.3 Leak Test

- Storage test:
  24h storage test with test medium 5% “Pril” fluid

3.2.4 Torque

- Closing torque: 450 Ncm +0/-200 Ncm
- Opening torque: 100 Ncm +50/-50 Ncm

3.2.5 Dimensions

According to attached article drawing(s).

4 Storage, Transport and Processing Conditions

4.1 Transport and Storage Conditions

Due to the nature of the raw materials, our products are sensitive to significant and prolonged variations in temperature. During transportation and short-term storage, temperatures in the range of -35°C to +65°C are tolerable. For long-term storage, we recommend temperatures in the range of 10°C to 25°C and 30% - 75% relative humidity. If stored outside these conditions, the performance of the articles may change significantly. The pallets must not be stacked when stored or in transportation.

4.2 Processing Conditions

If the products are stored under conditions beyond these recommended ranges, they should be stored at room temperature (18°C – 25°C) for at least 48 hours before processing. Provided that the storage and transport conditions are observed, the articles should be used for production within two years after delivery. In the event that the customer plans to use our products after the expiration of indicated maximum storage time, it is the responsibility of the customer to test the parts and determine they function safely for their specific application.

5 Suitability Test

All technical information and recommendations given above are according to the best of our knowledge. Suitability for a particular application must be tested in each individual case by the customer. We are happy to provide our recommendation, and our Development, Engineering and Quality Departments will gladly support the customer.

5.1 Food Application

Our products may not be approved for direct food contacts as it pertains amongst others to the standards of your country. In case the article should be used for direct food application, please provide the following information:

- Legal requirements
- Type of food
- Filling temperature
- Storage Conditions (e.g. temperature)
- Best-by date

After this information is available, our Sales Department will contact the customer to decide on further action (e.g. schedule, costs).

6 Contact details of Production Site

Georg MENSHEN GmbH & Co. KG
Industriestraße 26
57413 Finnentrop

Telefon: +49 2721 518-0
Telefax: +49 2721 518-198
E-Mail: contact@menshen.com

7 Documents

7.1 Drawing

- 12817.99.1 (42817.99.1): tamper evidence screw cap 45mm
- KTE 45: PTFE-Plug
- 22817.99.1: assembly tamper evidence screw cap 45mm with PTFE-Plug
- 22817.99.1 / 12817.99.1 (bottle neck glass)
- 22817.99.1 / 12817.99.1 (bottle neck plastic)

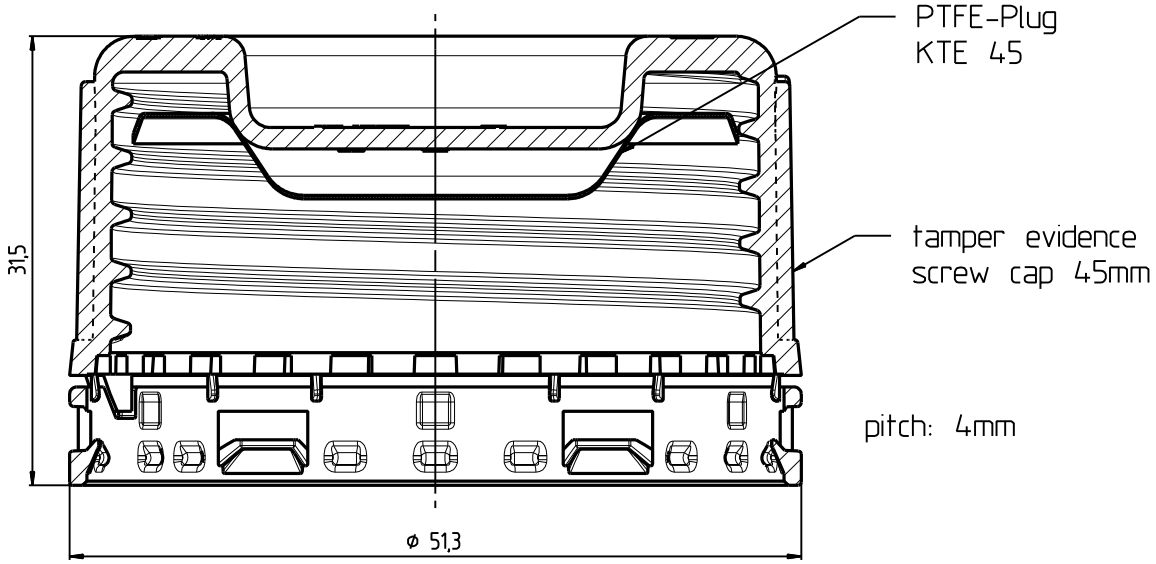
7.2 Appendix

- Specification Appendix 01: Variations Overview and Logistics

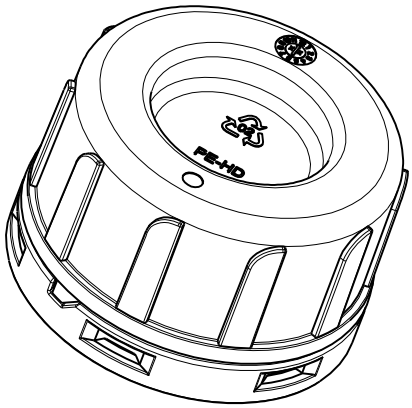
8 List of Changes

Date	Index	Description of Changes
2015-09-24	B	• Editorial revised
2017-03-07	C	• 2.2.1 Additive “Not used” removed, “See Specification Appendix 01” added • 3.2.3 Leak test added • 3.2.5 Dimensions Dimensions removed, “According to attached article drawing(s).” added • 4.1 Transport and Storage Conditions

		Last sentence added • 5.1 Food Application added • 6 Contact details of Production Site added



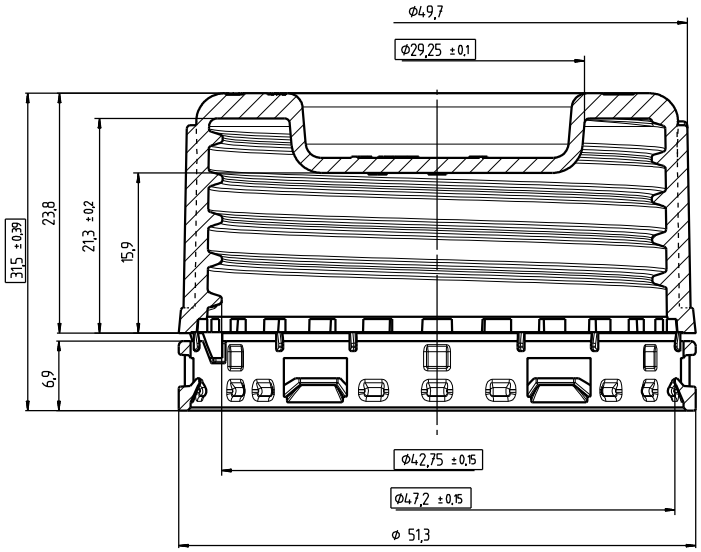
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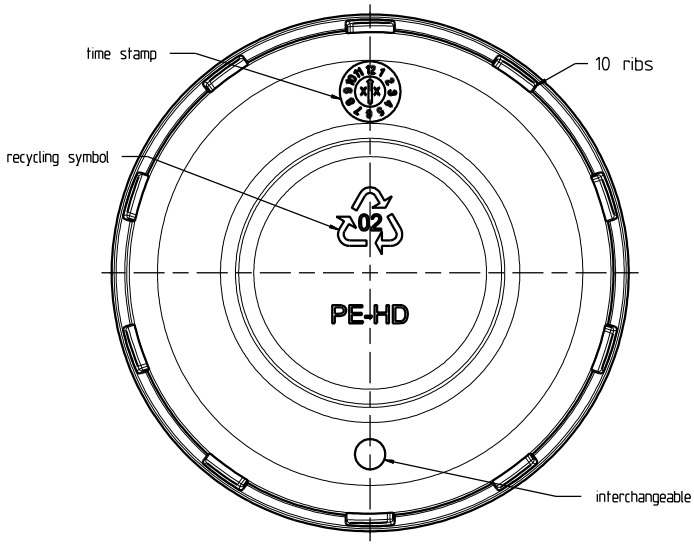
This drawing is not considered for changes. New information on request.

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				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 2:1 / 1:1		Gewicht: *weight* -
				Geprueft: *checked* Roemer	Bezeichnung: *description* assembly tamper evidence screw cap 45mm with PTFE - Plug		
				MENSHEN GEORG MENSHEN GmbH + CO.KG. Kunststoffverarbeitung 57413 Finnentrop Tel: +49 (0)2721-518-0 Fax: +49 (0)2721-518-198 Web: http://www.menshen.com	Artikel Nr.: *article no.*		Blatt: *sheet* 1
					Entwicklung Nr.: *development no.* 2.2817.99.1		von: *of* 1
.	.	.	.	This drawing may not be copied partially or complete nor handed out to third persons or competitors for use or copying without our approval ©	Datei: *file* KDZ 2817		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

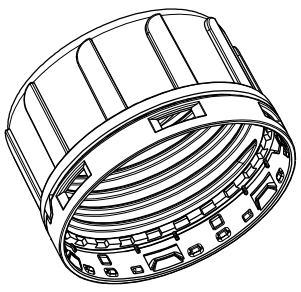
A4

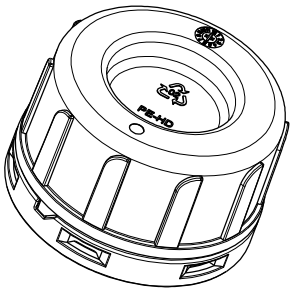


pitch: 4mm



1:1





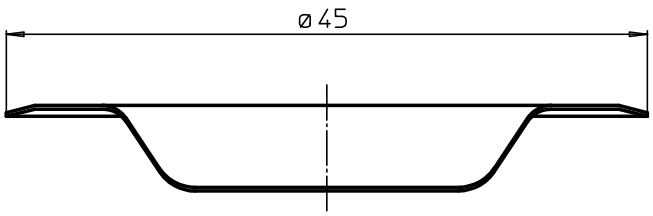
notes:
- outer rib surfaces to be finished according to VDI 3400, stage 27
- miscellaneous visible outer surfaces high gloss
- inner surfaces gloss, optimized for demoulding

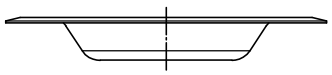
= tested dimensions

This drawing is not considered for changes. New information on request.

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				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 2:1 / 1:1	Gewicht: *weight* -	
				Geprueft: *checked* Roemer	Bezeichnung: *description* tamper evidence screw cap 45mm		
				MENSHEN GEORG MENSHEN GmbH + CO.KG. Kunststoffverarbeitung 57413 Finnentrop Tel: +49 (0)2721-518-0 Fax: +49 (0)2721-518-198 Web: http://www.menshen.com	Artikel Nr.: *article no.*	Blatt: *sheet* 1	
					Entwicklung Nr.: *development no* 1.2817.99.1 (4.2817.99.1)	von: *of* 1	
				This drawing may not be copied partially or complete nor handed out to third persons or competitors for use or copying without our approval ©	Datei: *file* KDZ 2817		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

A3h





M 1:1

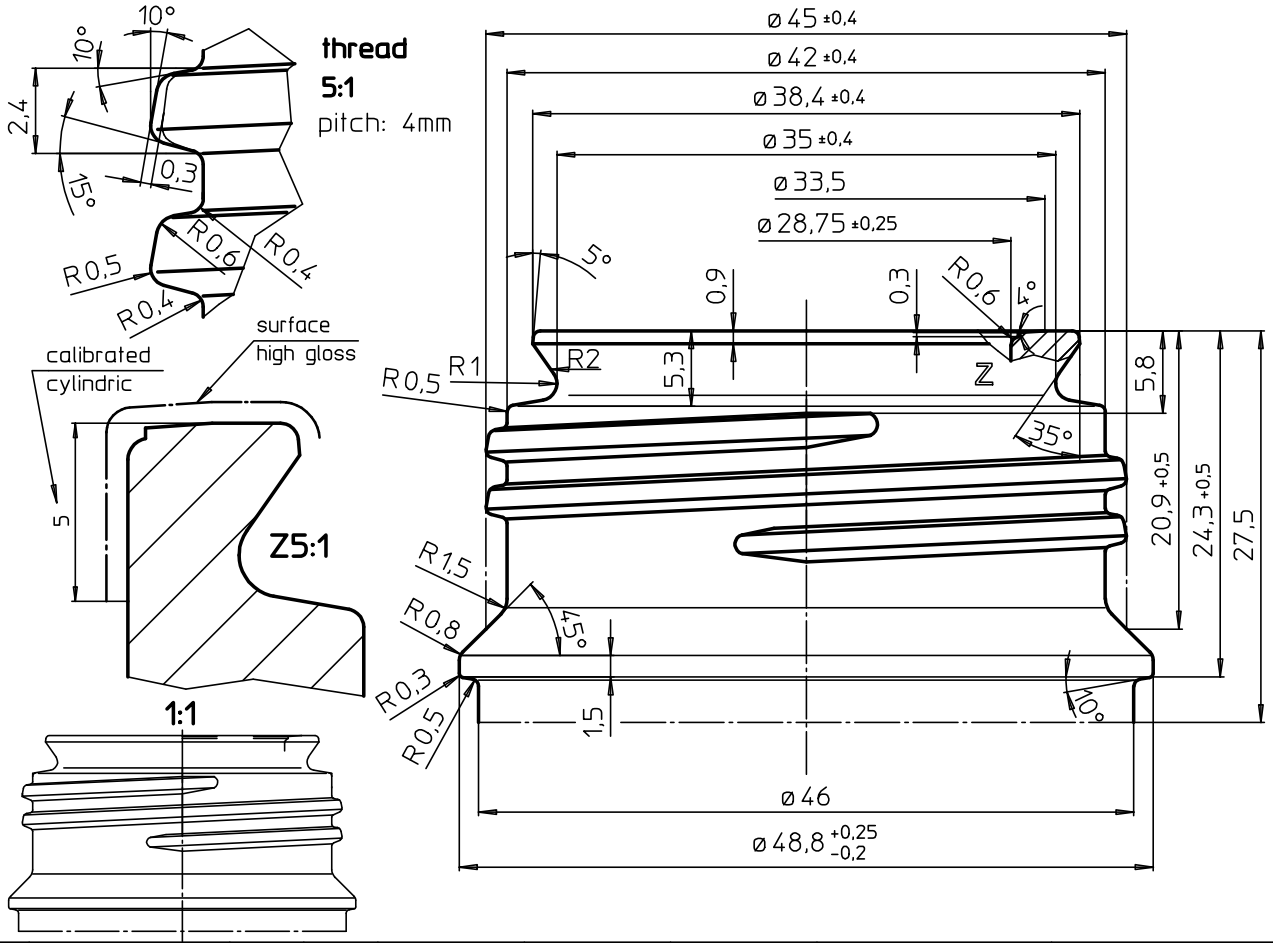
This drawing is not considered for changes. New information on request.

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				Geprueft: *checked* Braukmann	Bezeichnung: *description* PTFE - Plug		
				MENSHEN GEORG MENSHEN GmbH + CO.KG. Kunststoffverarbeitung 57413 Finnentrop Tel: +49 (0)2721-518-0 Fax: +49 (0)2721-518-198 Web: http://www.menshen.com	Artikel-Nr.: *article no.* KTE 45		Blatt: *sheet* -
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				This drawing may not be copied partially or complete nor handed out to third persons or competitors for use or copying without our approval ©	Datei: *file* KTE 45		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

A4

Please read before using this document!

The neck dimensions shown are those which have generally been found to be functional based on our and industry experience. Because of variability in closure and container finishes materials, however, each closure/finish system should be individually evaluated to ensure it meets applicable performance criteria. Closures and finishes having dimension outside these ranges are also appropriate for use if applicable performance criteria are met.
Therefore the bottle neck drawing is only a recommendation. The framed dimensions and tolerances have to be kept.The bottle neck drawing does not release the bottle maker and the processor from the responsibility of optimising the coordination between the closure according to the valid article drawing and the bottle neck. So that the cap and the neck threads fit well together it is necessary that the two threads (cap - bottle) connect together for one complete turn. We recommend to check it.



This drawing is not considered for changes. New information available on request.

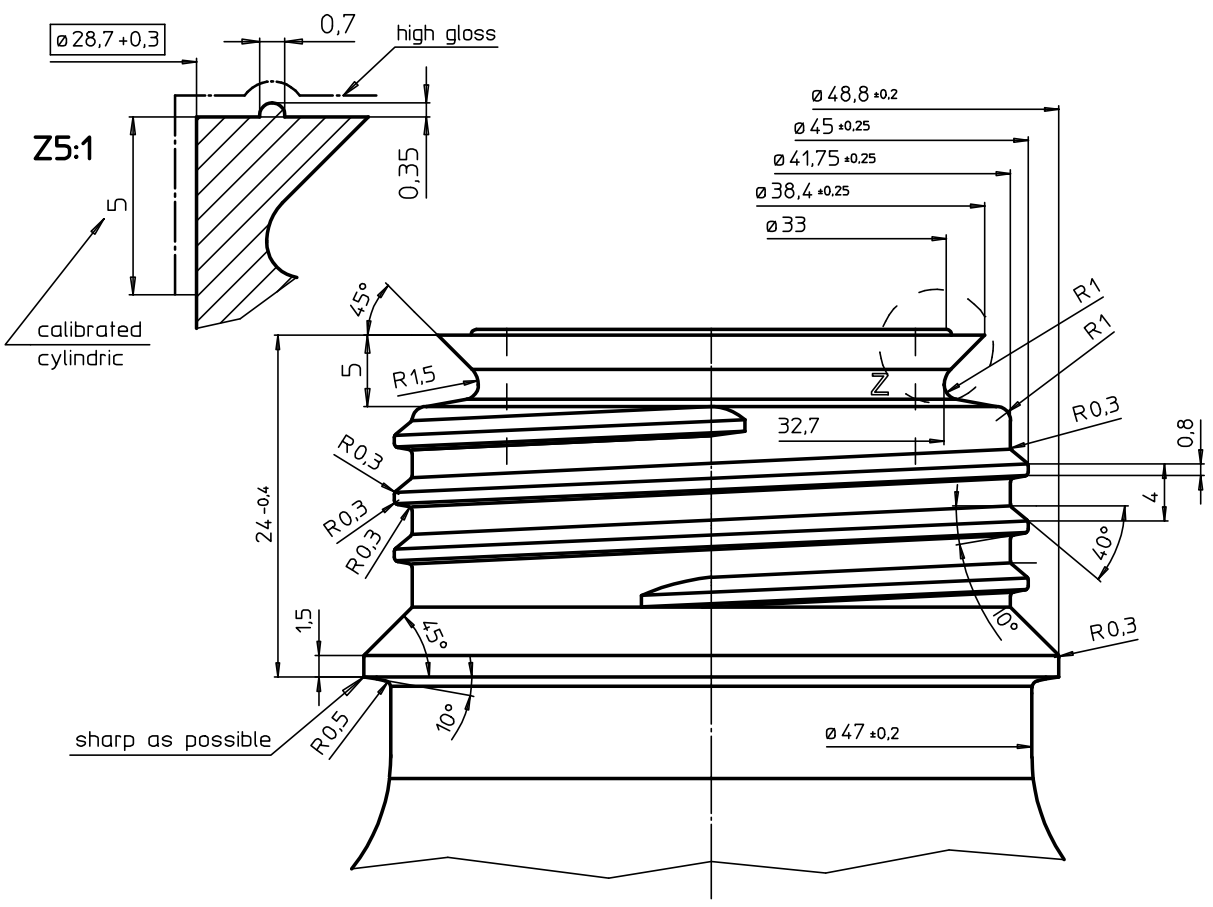
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				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 2:1 / 1:1 / 5:1	Gewicht: *weight* -	
				Geprueft: *checked*	Bezeichnung: *description* **bottle neck (glass) for tamper evidence screw cap 45mm**		
				MENSHEN GEORG MENSHEN GmbH + CO.KG. Kunststoffverarbeitung 57413 Finnentrop Tel: +49 (0)2721-518-0 Fax: +49 (0)2721-518-198 Web: http://www.menshen.com	Artikel-Nr.: *article no.* **2.2817.99.1 / 1.2817.99.1**	Blatt: *sheet* .	
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				This drawing may not be copied partially or complete nor handed out to third persons or competitors for use or copying without our approval ©	Datei: *file* KDZ 2817		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

A4

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This drawing is not considered for changes. New information available on request.

				Datum: *date* 30.04.2012	Freimasstoleranzen: *general tolerances* DIN 16901-150		Material: *material* -
				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 2:1 / 5:1		Gewicht: *weight* -
				Geprueft: *checked*	Bezeichnung: *description* **bottle neck (plastic) for tamper evidence screw cap 45mm**		
				MENSHEN GEORG MENSHEN GmbH + CO.KG. Kunststoffverarbeitung 57413 Finnentrop Tel: +49 (0)2721-518-0 Fax: +49 (0)2721-518-198 Web: http://www.menshen.com	Artikel-Nr.: *article no.* **2.2817.99.1 / 1.2817.99.1**		Blatt: *sheet* .
					Entwicklung Nr.: *development no.*		von: *of* .
				This drawing may not be copied partially or complete nor handed out to third persons or competitors for use or copying without our approval ©	Datei: *file* KDZ 2817		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

A4

Specification Appendix 01

C02 Technical Development

INT F Article: 22817XXX OVS DIN 45 E

Variations Overview and Logistics					
MENSHEN Article No.	**Article Description**	**Additive**	**Colour**	**Logistics**	
22817011	OVS DIN 45 E schwarz, PTFE-Napf	No	SCH7392 Polyblak 7392 black PE 0,75%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817021	OVS DIN 45 E rot, PTFE-Napf	No	FIN10624408 PE 10624408 rot 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 25 boxes / pallet 11.250 pieces / pallet (CP1 pallet, 1000x1200) approx.	10,7 g 5,8 kg - 166 kg
22817031	OVS DIN 45 E blau, PTFE-Napf	No	LIF53467 LIFOCOLOR-Blau 53467F PP 1,5%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817041	OVS DIN 45 E natur, PTFE-Napf	No	No	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817051	OVS DIN 45 Leichtverschluß gelb	No	FIN10049411 PP 10049411 gelb 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817061	OVS DIN 45 Leichtverschluß weiss	No	POLI127 Batch MB 127 white (PE) 1,5%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817071	Orig.-Leicht-VS magenta,Konus, PTFE-N.	AKZ2 Armoslip CPV Beads / Vegetable oleamide 0,3%	CLA66 CPL 066 magenta 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg

Specification Appendix 01

C02 Technical Development

INT F Article: 22817XXX OVS DIN 45 E

Variations Overview and Logistics

MENSHEN Article No.	Article Description	Additive	Colour	Logistics	
22817091	Orig.-VS orange Leicht DIN 45, PTFE-N.	No	MIC13030256 PP 13030256 orange 1,5%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817111	Orig.-Leicht-VS RAL 3027 Konus+PTFE Napf	No	FIN10745410 PPL 10745410 rot Fibaplast 2%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 25 boxes / pallet 11.250 pieces / pallet (CP1 pallet, 1000x1200) approx.	10,7 g 5,8 kg - 166 kg
22817121	OVS DIN 45 E rot, PTFE-Napf	No	FIN10624408 PE 10624408 rot 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817131	Orig.-VS gelb Leicht DIN 45, PTFE-N.	No	LIF1000813 PP 1000813F gelb 2%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 30 boxes / pallet 13.500 pieces / pallet (CP1 pallet, 1000x1200) approx.	10,7 g 5,8 kg - 195 kg
22817151	OVS DIN 45 Leichtverschluß silber	No	HAB1369 HP 1369 silber 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817161	OVS DIN 45 Leichtverschluß weiss	No	POLI127 Batch MB 127 white (PE) 1,5%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg
22817171	Orig.-Leicht-VS magenta,Konus, PTFE-N.	AKZ2 Armoslip CPV Beads / Vegetable oleamide 0,3%	CLA33335025 PP rot 33335025 – ZN 1%	weight per cap approx. 450 pieces / box (Karton Nr.16, 590x385x208) approx. 24 boxes / pallet 10.800 pieces / pallet (Euro pallet, 800x1200) approx.	10,7 g 5,8 kg - 160 kg

Note: Information relating to the EU Regulation 1907/2006 (REACH) are available on request for all above listed colours.

List of Changes

Date	Index	Description of Changes
2013-05-23	B	• Article 22817071 added
2014-01-04	C	• Article 22817071 quantity per pallet changed
2014-03-07	D	• Article added (22817081)
2015-09-24	E	• Articles added
2017-03-07	F	• Layout updated • Article 22817171 added • Article 22817011 logistic information updated • Article 22817071 & 22817171 Additive added