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Creator:	Jana Schmitt	**Date of issue:**	10.10.2016	**Signature:**	
Reviewed by:	Norbert Buchta	**Effective from:**	10.10.2016		

1 Part Description

Chemical Closure DIN 32 E with cone and PTFE-Bowl



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

Moplen EP 300 K

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

Specification Appendix 01

2.2.2 Color

Specification Appendix 01

2.2.3 Liner

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/moplen/

For Moplen EP 300 K

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

Screwed on a bottle, storaged in an oven with 45°C for 8h with test medium Menshen Blue.

3.2.4 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 are not approved for direct food contact. In case the article should be used for direct food application, our customer must 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

- 2.2544.99.1 (4.2544.99.1): tamper evidence screw cap DIN 32E “with sealing cone” optional with PTFE-Plug
- 4.2544.99.1: Assembly
- 2.2544.99.1-8 (4.2544.99.1-8): Bottle neck HD-PE “DIN 32 E”
- 2.2544.99.1-8 (4.2544.99.1-8): Bottle neck glas 32mm with pouring brim
- KER 32: PTFE-Plug

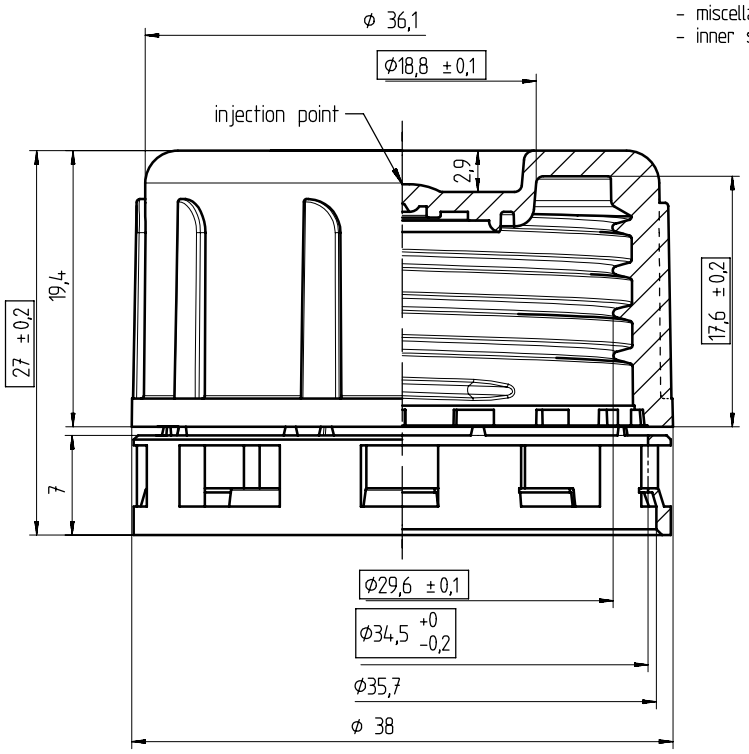
7.2 Appendix

- Specification Appendix 01: Variations Overview and Logistics

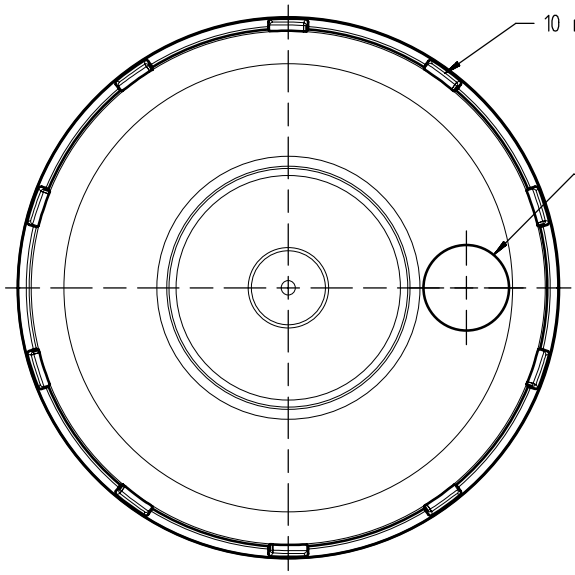
8 List of Changes

Date	Index	Description of Changes
10.10.2016	B	Editorial revised

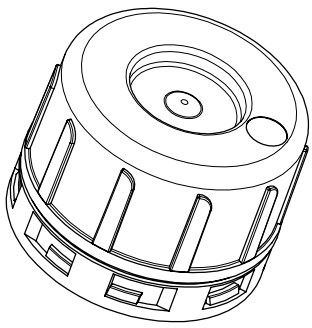
notes:
- outer rib surfaces to be spark finished according to VDI 3400, stage 27
- miscellaneous visible outer surfaces high gloss
- inner surfaces gloss, optimized for demoulding



Steigung 3mm



1:1

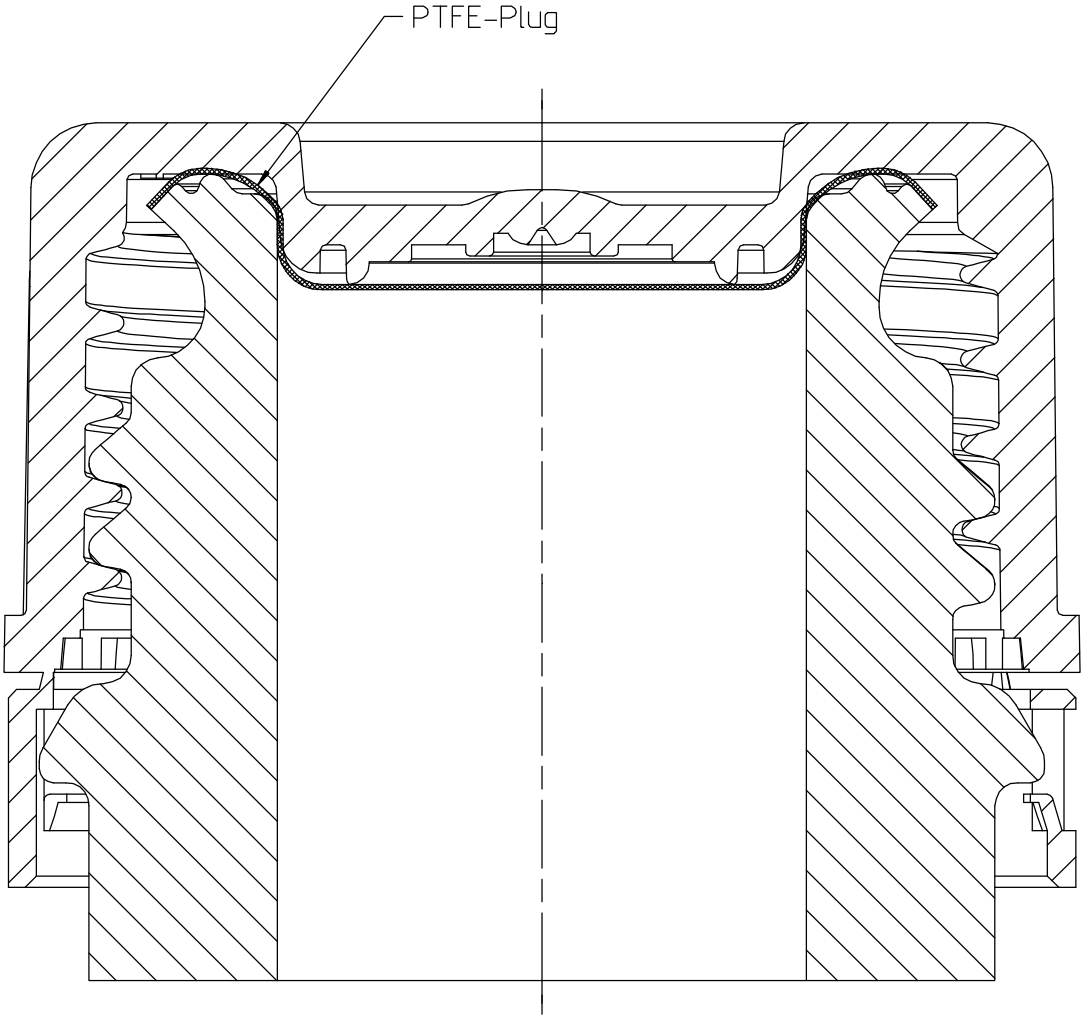


= tested dimensions

Drawing is not considered for changes. New information available on request

				Datum: *date* 20.09.2012	Freimasstoleranzen: *general tolerances* DIN 16901-150	Material: *material* PP	
				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 2:1	Gewicht: *weight* –	
				Geprueft: *checked*	Bezeichnung: *description* tamper evidence screw cap DIN 32E "with sealing cone" optional 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.* 2.2544.99.1 (4.2544.99.1)	Blatt: *sheet* 1	
					Entwicklung Nr.: *development no.*	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 2544		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* –	Ersetzt durch: *superseded by* –	

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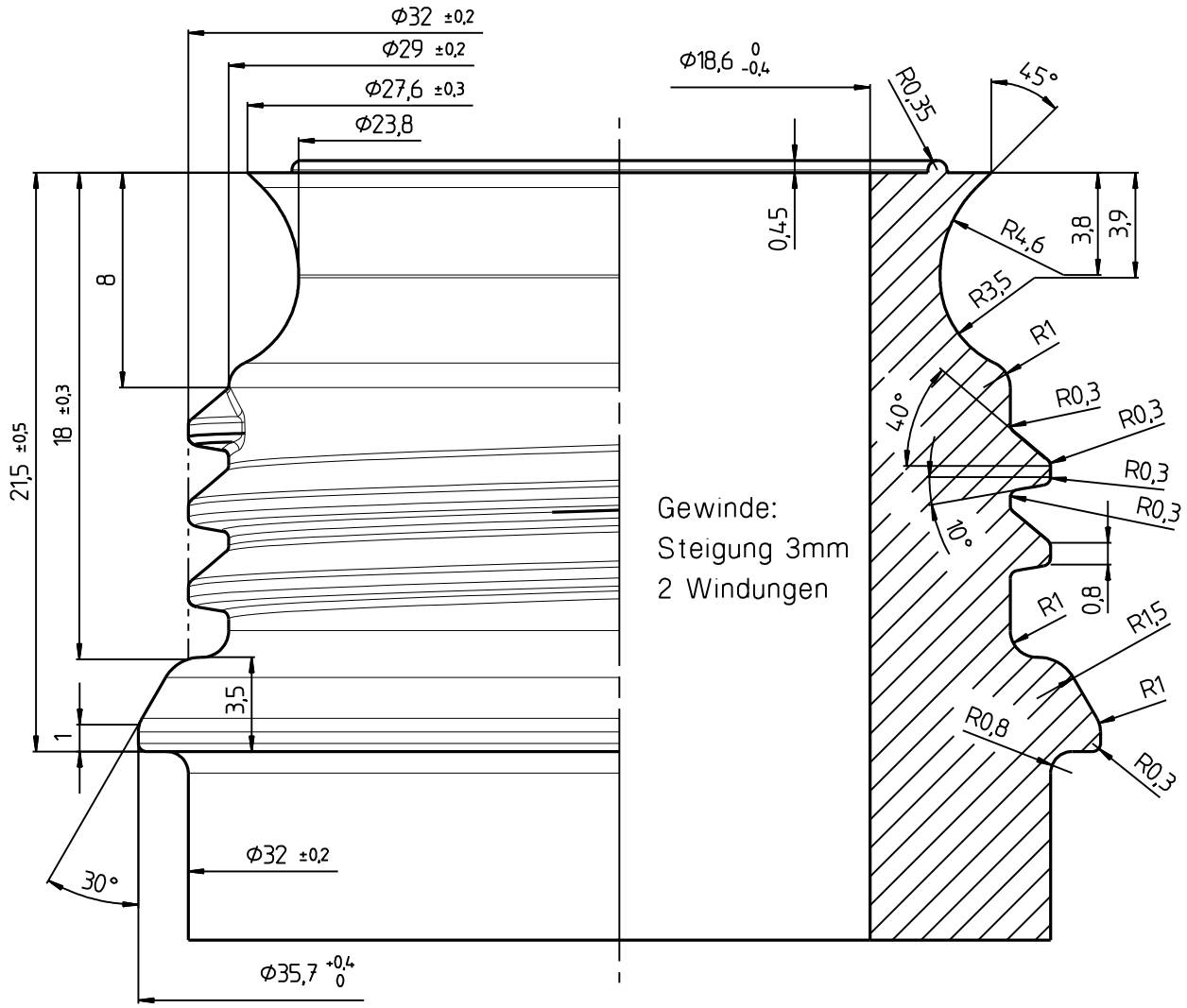
Drawing is not considered for changes. New information available on request

				Datum *date* 22.10.2012	Freimasstoleranzen *general tolerances* DIN 16901-150		Material *material* –
				Gezeichnet *drawn by* Mertens	Massstab *scale* 5:1		Gewicht *weight* –
				Geprueft *checked* Roemer	Bezeichnung *description* Assembly - Tamper Evident Screw Cap DIN 32E with sealing cone - Special Bottle Neck Glas with pouring brim - 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.* 4.2544.99.1_bg		Blatt *sheet* 1
					Entwicklung Nr *development no.*		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* ___/4.2544.99.1_bg/_dwg		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer *supersedes* –	Ersetzt durch *superseded by* –	

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Please read before using this document

The neck dimensions shown are those which have generally been found to be functional based on and industry experience. Because of variability in plastic 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.



▭ = tested dimensions

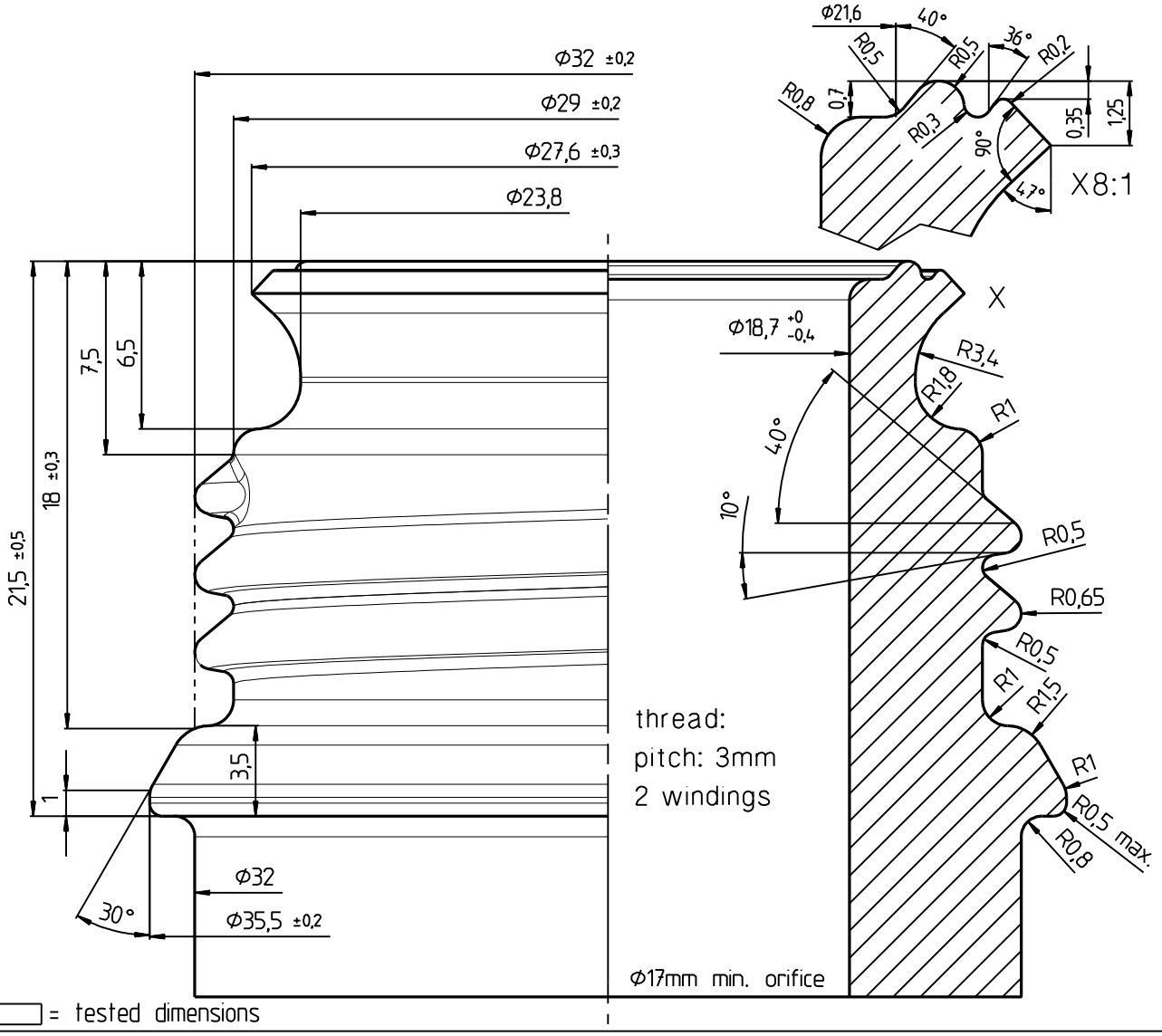
Drawing is not considered for changes. New information available on request

				Datum: *date* 07.02.2011	Freimasstoleranzen: *general tolerances* ± 0,2	Material: *material* HD-PE	
				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 4:1	Gewicht: *weight* -	
				Geprueft: *checked*	Bezeichnung: *description* bottle neck HD-PE "DIN 32 E"		
				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.* 2.2544.99.1-8 (4.2544.99.1-8)	Blatt: *sheet* 1	
					Entwicklung Nr.: *development no.*	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 2544		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

A4

Please read before using this document

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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.

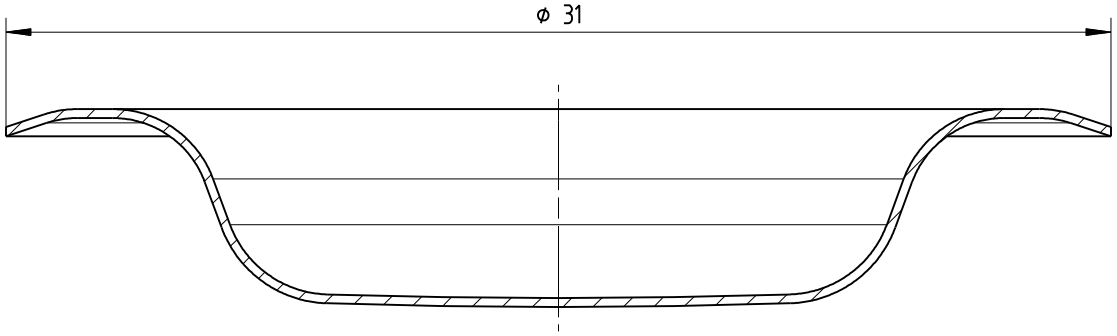


☐ = tested dimensions

Drawing is not considered for changes. New information available on request

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				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 4:1	Gewicht: *weight* -	
				Geprueft: *checked*	Bezeichnung: *description* bottle neck glas 32mm with pouring brim		
				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.* 2.2544.99.1-8 (4.2544.99.1-8)	Blatt: *sheet* 1	
					Entwicklung Nr.: *development no.*	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 2544		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* -	Ersetzt durch: *superseded by* -	

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Dimensions changing due to assembling.
These changes have no negative influences on function.

Drawing is not considered for changes. New information available on request

				Datum: *date* 22.10.2012	Freimasstoleranzen: *general tolerances* DIN 16901-150	Material: *material* –	
				Gezeichnet: *drawn by* Mertens	Massstab: *scale* 5:1	Gewicht: *weight* –	
				Geprueft: *checked* Roemer	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.* KER 32	Blatt: *sheet* 1	
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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* KER 32		
Index	Aenderung *modification*	Datum *date*	Name *name*		Ersatz fuer: *supersedes* –	Ersetzt durch: *superseded by* –	

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Specification Appendix 01

C02 Technical Development

INT B Article: 22544XX1 OVS DIN 32 E, Cone and PTFE-Bowl

Variations Overview and Logistics						
MENSHEN Article No.	**Article Description**	**Liner**	**Additive**	**Color**	**Logistics**	
22544021	OVS DIN 32 E, PP blau, Konus,PTFE-Napf	KER32 PTFE-Dichtnapf DIN 32	No	LIF53467 LIFOCOLOR-Blau 53467F PP 1,5%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 16 boxes / pallet 19.200 pieces / pallet (Euro pallet, 800x1200) approx.	6,6 g 9,0 kg - 163 kg
22544031	OVS 32 E rot, Konus, PTFE-Napf,	KER32 PTFE-Dichtnapf DIN 32	No	FIN10624408 PE 10624408 rot 1%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 16 boxes / pallet 19.200 pieces / pallet (Euro pallet, 800x1200) approx.	6,6 g 9,0 kg - 163 kg
22544051	OVS DIN 32 E, PP gelb,Konus,PTFE-Napf	KER32 PTFE-Dichtnapf DIN 32	No	FIN10049411 PP 10049411 gelb 1%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 15 boxes / pallet 18.000 pieces / pallet (Euro pallet, 800x1200) approx.	6,6 g 9,0 kg - 154 kg
22544071	OVS DIN 32 E, PP weiß,Konus,PTFE-Napf	KER32 PTFE-Dichtnapf DIN 32	No	POLI117 MB-1/17 weiss PP 1,5%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 16 boxes / pallet 19.200 pieces / pallet (Euro pallet, 800x1200) approx.	6,6 g 9,0 kg - 163 kg
22544081	OVS DIN 32 E, RAL3027, Konus, PTFE-Napf	KER32 PTFE-Dichtnapf DIN 32	No	FIN10745410 PPL 10745410 rot Fibaplast Var. 1 - 2 % 2%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 16 boxes / pallet 19.200 pieces / pallet (Euro pallet, 800x1200) approx.	6,6 g 9,0 kg - 163 kg
22544131	OVS DIN 32 E, PP rot, Konus, PTFE-Napf	KER32 PTFE-Dichtnapf DIN 32	No	FIN10624408 PE 10624408 rot 1%	weight per cap approx. 1.200 pieces / box (Karton Nr.51, 576x360x350) approx. 20 boxes / pallet 24.000 pieces / pallet (IPPC pallet, 800x1200) approx.	6,6 g 9,0 kg - 199 kg

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

Specification Appendix 01

C02 Technical Development

INT B Article: 22544XX1 OVS DIN 32 E, Cone and PTFE-Bowl

List of Changes

Date	Index	Description of Changes
10.10.2016	B	Variations Overview updated