

**GERRESHEIMER**



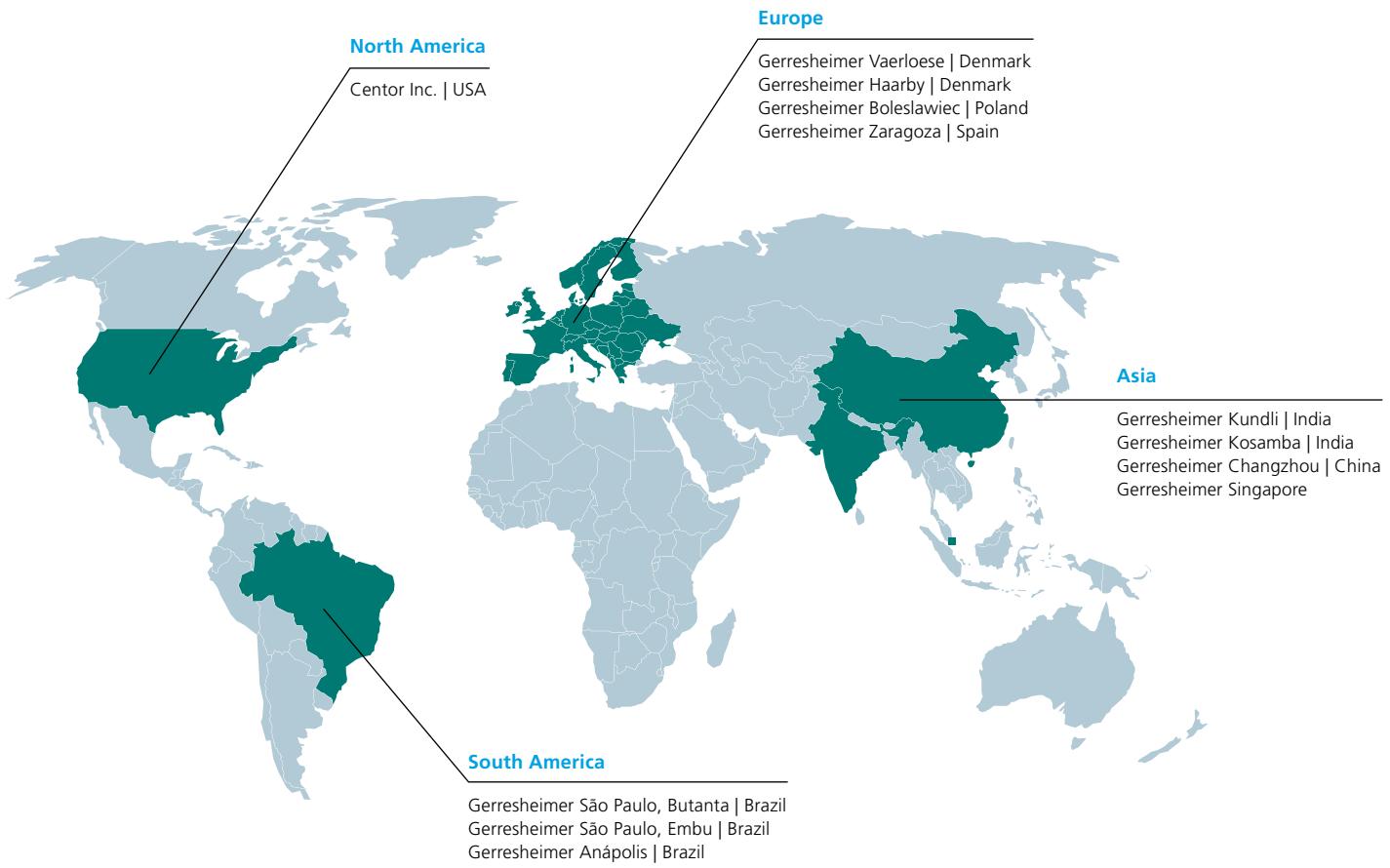
## High-Quality Pharmaceutical Plastic Packaging and Systems

PET / Liquid & Solid



[www.gerresheimer.com](http://www.gerresheimer.com)

# Gerresheimer Plastic Packaging



## About Gerresheimer

Gerresheimer is a leading global partner to the pharma and health-care industry. With our specialty glass and plastic products, we contribute to health and well-being. We have worldwide operations and about 10,000 employees manufacture our products in local markets, close to our customers. With our plants in Europe, North America, South America and Asia, we generate revenues of approximately EUR 1.4 billion.

The comprehensive product portfolio includes pharmaceutical packaging and products for the safe, simple administration of medicines: Insulin pens, inhalers, micro pumps, prefilled syringes, injection vials, ampoules, bottles and containers for liquid and solid medicines with closure and safety systems as well as packaging for the cosmetics industry.

# Gerresheimer Plastic Packaging Solutions

## Intelligent products for diverse pharmaceutical applications



Solid Dosages

Ophthalmic, Nasal and Parenteral Applications



PET / Liquid & Solid

Gerresheimer Plastic Packaging specializes in the widely varied spectrum of pharmaceutical plastic packaging within solid, liquid and ophthalmic applications, plastic vials and plastic bottles for personal care. Our leading brands Duma®, Dudek™ and Triveni for solid dosage, edp-branded PET bottles for liquid dosage and our ophthalmic products form part of a comprehensive and innovative product range. Our monolayer plastic vials are based on COP and offer inert contact surface and deliver a unique packaging safety feature to manufacturers of toxic or high potency drug solutions.

Our standard range includes a wide choice of different types of containers and closures, PET bottles, eye droppers, nasal sprays as well as numerous customized developments.

Using our ideas and experience to produce intelligent, increasingly safe and user-friendly packaging solutions has enabled us to become an innovative partner to the global pharmaceutical industry.

We know, understand and reinforce our customers business.

# Sustainable plastic packaging

## Plastic materials

PET | R-PET | BIO-PET

As Gerresheimer Plastic Packaging is committed to environmental concerns we offer our PET ranges with different mixtures of post-consumer recycled materials.

We can produce bottles made of up to 100% R-PET.



## Ecological aspects

Besides using recycled materials, Gerresheimer is also motivated to help our customers contribute to the reduction of greenhouse gas emissions by using biomaterials. Biomaterials are the renewable alternative to conventional PE/PET.

Sugarcane is one of the substances used to make biomaterials. You take the ethanol from the sugarcane plant and then put it through a dehydration process to transform it into green ethylene. Afterwards the green ethylene goes to the polymerization plants, where it is converted into green PE/PET.



## Technical Features

- ISBM technology
- PET, R-PET, BIO-PET
- bottles available in different colors
- Different mixtures of post-consumer recycled materials
- 3D CAD design software
- ISO 9001

# Gerresheimer Zaragoza now pharma focused company with clean room



- Single source provider of bottles and caps manufactured in an ISO class 8 clean room
- Further quality and stability enhancements
- Improved production processes with new machines and molds
- ISO certifications (ISO 9001 and ISO 15378)



## PET packaging for liquid



# Specialist and quality leader in primary plastic packaging

Our manufacturing operations use state-of-the-art technology and apply the most rigorous quality and hygiene standards. They cover all production technologies from injection moulding and injection blow moulding to blow moulding processes. The majority of our production operations are carried out in modern classified clean-rooms or in clean conditions. All plants apply the rules of Good Manufacturing Practice (GMP) and are certified in accordance with ISO standards.

- Solution providing
- Good Manufacturing Practice (GMP)
- ISO certifications (ISO 9001, ISO 15378, ISO 14001)
- Automated in-line controls
- Vision-based inspection system
- Class 7 (10,000) + class 8 (100,000) clean-rooms

## Strong regulatory approach

We ensure full conformity of our products with the European pharmacopoeia, the United States pharmacopeia and the requirements for FDA registration with a Drug Master File as the standard. Knowing the extensive requirements of our customers we focus on providing a high level of documentation with our products.

- High level of documentation and registration
- Standard product database
- FDA and world-wide registration of all products
- US and Canada Drug Master File
- Product registrations in Russia, China and the Ukraine
- Food approval

## Strong quality culture

A strong quality culture supports our efforts to deliver excellent quality. The culture is defined by our shared beliefs, values and behaviour patterns.

- Quality attitude and team work
- Continuous improvements
- Systematic problem solving
- Quality by design
- Stable, robust, reliable and validated processes
- Risk-based approach

# PET / Liquid & Solid



We offer a comprehensive range of edp-branded PET bottles for liquids and closures in HDPE and PP for different applications.

All our bottles can be supplied with caps, reducers and other accessories. Some are optionally available with a measuring cup that has a 2.5 to 10 ml scale or a measuring cup with a 5 to 20 ml scale.

Some of our products are even compatible with glass accessories/bottles.

You can opt for one of the products in the standard range or design a product customized to your needs and requirements with our R&D team.

- PET bottles for liquid – EDP brand
- PET containers for solid – Duma® PET
- PET bottles for oral care
- Caps and measuring cups for PP18 neck, PP28 neck & Duma® PET
- Customized shapes
- Different colours available
- PP18 and PP28 caps compatible with glass, PE & PP solutions
- UV filter
- FDA registered, DMF type III, DMF no. 22946, US Drug Master File (DMF)
- Recycled materials

## Liquid



ST bottles  
PP18 neck



ST bottles  
PP28 neck



PF bottles  
PP28 neck



LP bottles  
PP28 neck



OM bottles  
PP18 neck  
PP28 neck



PL bottles  
PP28 neck

## Solid



Duma® PET

## Oral Care



Mouthwash

## Accessories



Complements

Standard and custom molding

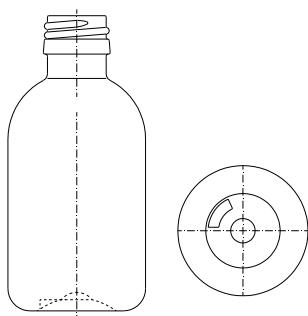
# ST bottles PP18 neck



## SPECIFICATIONS

	ref	ml	ml	mm	mm	mm	
ST10 PP18 PET 4,5	1104	10	14,8	23	54	PP18	10088
ST15 PP18 PET 4,5	1105	15	21	24,6	63	PP18	10088
ST30 PP18 PET 5,8	900	30	35,2	29	75	PP18	10088
ST50 PP18 PET 8	910	50	60	37,3	80	PP18	10088

- Material: Bottle PET, tamper-evident cap PP
- 4 ST bottles PP18 neck sizes ranging from 10–50 ml
- Can be supplied with other caps and reducers
- Bottles available in different colors

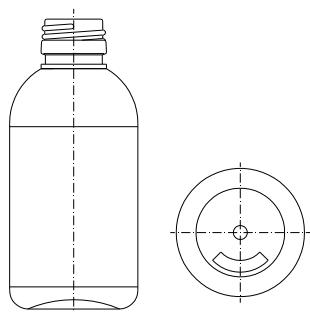


# ST bottles PP28 neck



## SPECIFICATIONS

	ref	ml	ml	mm	mm	mm		
ST100 PP28ST PET 17	1103	100	119,5	46	100,5	PP28ST	10089	10100/10108
ST200 PP28ST PET 21	1094	200	222	55,3	125	PP28ST	10089	10100/10108
ST250 PP28ST PET 28	140	250	270	55	148	PP28ST	10089	10100/10108
ST300 PP28ST PET 27,5	1006	300	315	60	147	PP28ST	10089	10100/10108
ST500 PP28ST PET 35	1090	500	521	68,5	179	PP28ST	10089	10100/10108
ST600 PP28ST PET 53	472	600	630	76	182	PP28ST	10089	10100/10108
ST1000 PP28ST PET 57	1002	1000	1030	85,1	227,8	PP28ST	10089	10100/10108



- Material: bottle PET, tamper-evident cap PP, measuring cup PP
- Can be supplied with other caps and reducers
- Measuring cup can be supplied with the scale from 5 ml to 20 ml in clear (10108) and white (10100) colour
- Bottles available in different colours

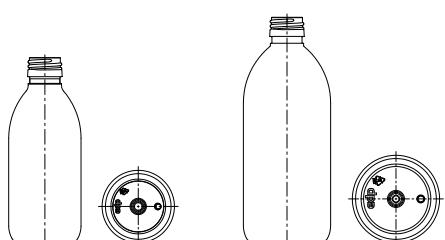


# PF bottles PP28 neck



## SPECIFICATIONS

	ref	ml	ml	mm	mm	mm		
PF60 PP28ST PET 11,8	161	60	80	38	95,5	PP28ST	10089	10100/10108
PF 90 PP28ST PET 15	1110	90	97,5	40,7	101,6	PP28ST	10089	10100/10108
PF100 PP28ST PET 17	1093	100	115	44,1	107	PP28ST	10089	10100/10108
PF120 PP28ST PET 17,5	163	120	150	48	115,5	PP28ST	10089	10100/10108
PF150 PP28ST PET 17,5	164	150	175	49	126,1	PP28ST	10089	10100/10108
PF200 PP28ST PET 24	1095	200	222,5	52,1	144,5	PP28ST	10089	10100/10108
PF250 PP28ST PET 24	1096	250	283	58	147,7	PP28ST	10089	10100/10108
PF300 PP28ST PET 24	1123	300	313	60,6	145,5	PP28ST	10089	10100/10108
PF500 PP28ST PET 35	1089	500	526	70	180	PP28ST	10089	10100/10108



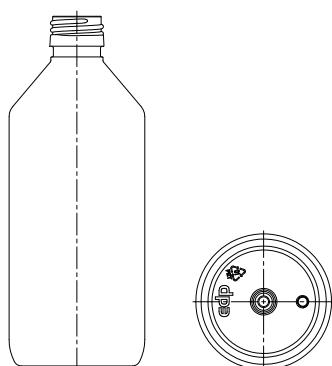
- Material: bottle PET, tamper-evident cap PP, measuring cup PP
- Can be supplied with other caps and reducers
- Measuring cup can be supplied with the scale from 5 ml to 20 ml in clear (10108) and white (10100) colour
- Bottles available in different colours

## LP bottles PP28 neck



### SPECIFICATIONS

	ref	ml	ml	mm	mm	mm		
LP150 PP28ST PET 21	520	150	170,5	52,5	112,75	PP28ST	10089	10100/10108
LP500 PP28ST PET 35	1091	500	520,5	69,5	179	PP28ST	10089	10100/10108
LP1000 PP28ST PET 50	1124	1000	1050	88	218	PP28ST	10089	10100/10108



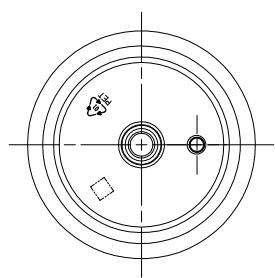
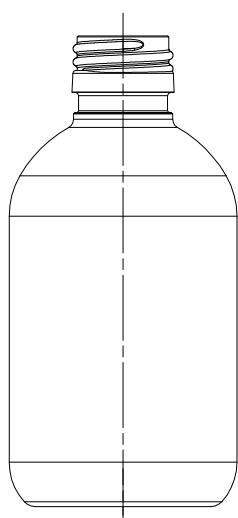
- Material: bottle PET, tamper-evident cap PP, measuring cup PP
- Can be supplied with other caps and reducers
- Measuring cup can be supplied with the scale from 5 ml to 20 ml in clear (10108) and white (10100) colour
- Bottles available in different colours

# OM bottles PP18 and PP28 neck



## SPECIFICATIONS

	ref	ml	ml	mm	mm	mm		
OM15 PP18 PET 4,5	1117	15	20	25,5	56,35	PP18	10088	
OM250 PP28ST PET 24	1111	250	272	61,7	127,5	PP28ST	10089	10100 / 10108

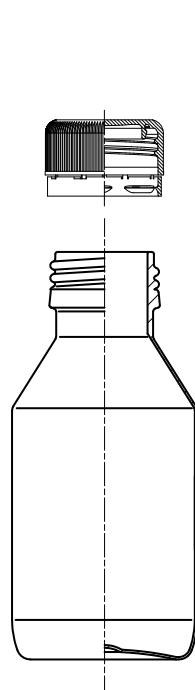


- Material: bottle PET, tamper-evident cap PP, measuring cup PP
- Can be supplied with other caps and reducers
- Measuring cup can be supplied with the scale from 5 ml to 20 ml in clear (10108) and white (10100) colour
- Bottles available in different colours

# PL bottles PP28 neck



## SPECIFICATIONS



ref	ml	ml	mm	mm	mm		
37101	100	119	47	103	PP28	15127	41010
37126	125	150	48	116	PP28	15127	41010
37151	150	200	54	122	PP28	15127	41010
37251	250	300	58	153	PP28	15127	41010

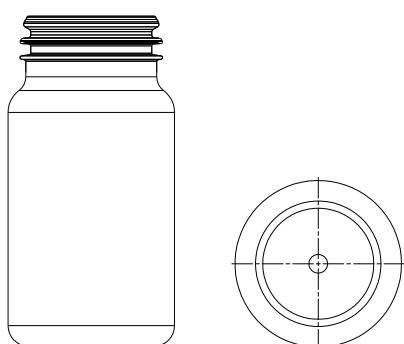
- Material: bottle PET, tamper-evident screw cap PE, measuring cup PP
- Bottles available in amber, white, clear
- Measuring cup with scale available from 2,5 ml to 10 ml
- Suited to standard filling and packaging equipment
- Manufactured under clean-room conditions

# Duma® PET



## SPECIFICATIONS

	ref	ml	► mm	▲ mm ▼	mm	mm	Label mm	Int. Des.*
DUMAPET 75 17	1058	75	45,5	73	33	37,7	4015	4015
DUMAPET 100 17	1036	100	45,5	89,5	33	54	4015	4015
DUMAPET 125 20	1037	125	48,7	96,5	33	58,5	4015	4015
DUMAPET 150 20	1038	150	51,4	100	33	61,5	4015	4015
DUMAPET 200 20,5	1054	200	51,1	125	33	88	4015	4015



- Material: bottle PET, cap LDPE
- Bottles available in different colours
- Snap lock system
- Handy cap easy-open system
- Tamper-evident
- Available with integrated desiccant 4 g
- Caps available in different colours



# Mouthwash



## SPECIFICATIONS

	ref	ml	ml	mm	mm	mm
COL500 M1759 PET 41	724	500	545	83 x 46	224	M1759
COL500 M1759 PET 41	538	500	524	81,6 x 50	227	M1759

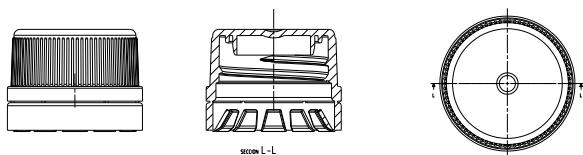
- PET bottles
- Can be supplied with cap



# Complements



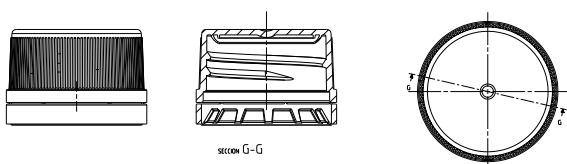
PP18



- Material: tamper-evident cap PP
- Suitable for ST bottles PP18 neck (see page 10) and OM bottle 15 ml (see page 15)
- Ref 10088 on page 10 and 15 corresponds to PP18 cap



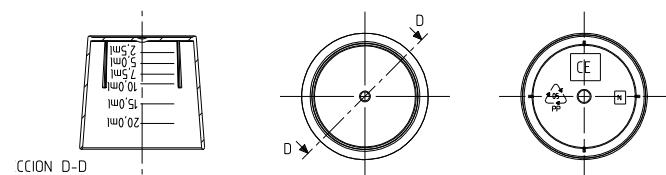
PP28



- Material: tamper-evident cap PP
- Suitable for ST, PF, LP, OM bottles PP28 neck (see pages 11, 13, 14 and 15)
- Ref 10089 on pages 11, 13, 14 and 15 corresponds to PP28 cap



Measuring Cup



- Material: measuring cup PP
- Measuring cup from 5 ml to 20 ml available in white and clear
- Ref 10100 and 10108 on pages 11, 13, 14 and 15 correspond to PP28 measuring cup

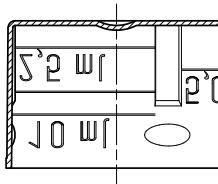
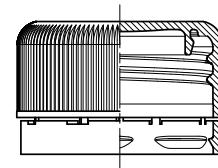
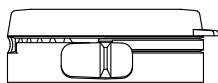
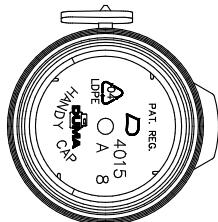
# Complements



Duma® Handy cap



PL bottles PP28 neck



- Material: cap LDPE
- Suitable for Duma® PET containers (see page 17)
- Snap lock system
- Handy Cap easy-open system
- Tamper-evident
- Available with integrated desiccant 4 g
- Caps available in different colours
- Ref 4015 on page 17 corresponds to Duma® Handy Cap

- Material: tamper-evident screw cap PE, measuring cup PP
- Suitable for PL bottles PP28 neck (see page 16)
- Ref 15127 on page 16 corresponds to the cap
- Ref 41010 on page 16 corresponds to the measuring cup



# Standard and custom molding

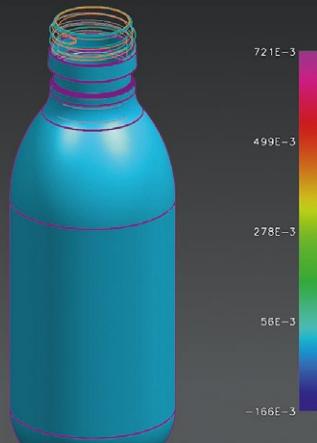
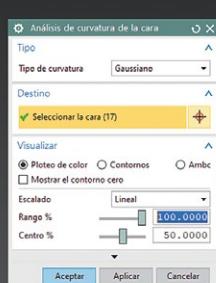


Gerresheimer has a dedicated and committed R & D department



## Product Design

Gerresheimer offers a wide range of services to generate product designs from initial product concept to the final shape. It is a process through final tool design 3D CAD software providing photo realistic rendered images. We can also propose mock ups for this initial stage.



## Technical Evaluations

We offer a full service, covering all technical and commercial aspects, from the unit tool to the first samples produced in the industrial mold. Our engineers have a vast experience and knowledge of product development.

## Service

We are customer-oriented, working hand by hand from the first draft to the production in our customers' filling line.



# CUSTOMIZED



Gerresheimer Plastic Packaging offers unique diversity even in the standard range and we are happy to develop products for individual needs and requirements. Our machines give us maximum flexibility and allow us to adapt easily to any size of product series.

We cooperate with experienced coloring partners and we have the capability to develop specific master batches within short notice for pharma and para-pharmacy products.

We can also support our customers offering them outsourced service of sterilisation and decoration.

# GERRESHEIMER



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Pharmaceutical Plastic Packaging  
and Systems for South America is  
to be found in a separate catalogue