

Pharmaceutical primary packaging China

Plastic packaging solutions for China

gerresheimer.com

gerresheimer

innovating for a better life

About Gerresheimer

Innovating for a better life

Gerresheimer is the global partner for pharmaceuticals, biotech, healthcare, and cosmetics with a very broad product range for pharmaceutical and cosmetic packaging solutions and drug delivery systems.

The company is an innovative solution provider from concept to delivery of the end product. Gerresheimer achieves its ambitious goals through a high level of innovative strength, industrial competence and concentration on quality and customer focus.

In developing innovative and sustainable solutions, Gerresheimer relies on a comprehensive international network with numerous innovation and production centers in Europe, America and Asia. Gerresheimer produces close to its customers worldwide with around 11,000 employees and generated annual revenues in 2022 of EUR 1.82bn. With its products and solutions, Gerresheimer plays an essential role in people's health and well-being.

Plastic packaging solutions for diverse pharmaceutical applications

Gerresheimer Primary Packaging Plastics 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, nebulizers, applicators, accessories 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.

Solid formulations



Ophthalmic and nasal applications



Monolayer plastic vials



Liquid formulations





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

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, ISO 45001)
- Automated in-line controls
- Vision-based inspection system
- Class 7 (10,000) + class 8 (100,000) clean-rooms



Innovating for a better life



Success through constant innovation

- Cover your needs with wide product family
- Full solutions with less material and same properties
- Competitive advantage via product differentiation
- Solution provider to customer challenges
- Vision for identifying future customer needs



Reliability through excellent quality

- Strong quality culture based on right first time
- Deliver best-in-class products and services and a high level of documentation
- Strong regulatory platform and conform with EP and USP
- Certified according to relevant ISO standards and operate in classified clean rooms
- Deep understanding of patient safety and customer requirements



Understanding through technical competence

- Complete solution provider and partner for new projects
- Extensive experience and know-how
- Optimized processes with high quality molds and machines
- Support with auxiliary processes e.g., sterilization
- Excellent technical support in order to run your production smoothly



Flexibility through global presence

- One supplier and one responsibility
- Understanding local market needs and regulations
- Uniform and state-of-the-art manufacturing conditions
- Global lean organization increasing the speed to market
- Easy transfer of production to another region



Performance through commitment to sustainability

- We Rethink our processes and products for a more sustainable future
- We recycle our production waste 100%
- We design for recycling for over 20 years
- We challenge our suppliers social and economic impacts on carbon footprint
- We are standing for the healthy and social well-being of our employees



Plastic packaging solutions
for solid formulations

>> page 10



Plastic packaging solutions
for ophthalmic, nasal
and parenteral applications

>> page 30

Solid formulations

Our Duma®, Dudek™ and Triveni branded products include a broad range of containers in HDPE and caps in LDPE & PP for the pharmaceutical market.

A wide choice of solid formulations, closure and security systems makes the range fully adaptable to the individual requirements of the customer.

Our assortment includes screw cap containers, snap-on containers and closures with child-resistant and senior-friendly features.



Solid formulations

... with screw system (TE + CR + SF)

- 

1
Duma®
Twist-Off
- 

2
Duma®
Twist-Off Q
- 

3
Duma®
MG / Multi-Grip
- 

4
**Triveni Round /
Triveni Square**
(induction seal)
- 

5
Triveni Dry Syrup
(induction seal)

... with snap-on system (TE + CR)

- 

6
Duma®
Standard
- 

7
Duma®
Special
- 

8
Dudek™

Special design

- 

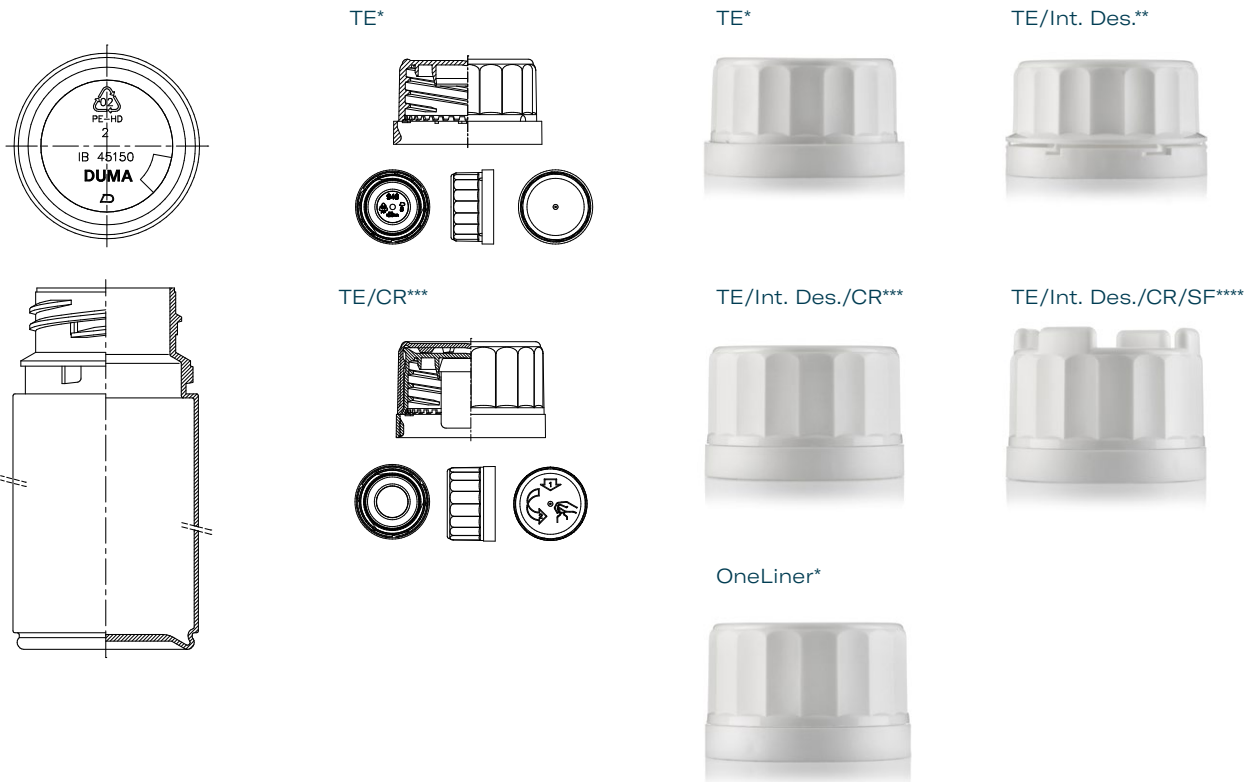
9
Duma®
Pocket
- 

Duma® Twist-Off

screw system



specifications



Duma® Twist-Off

| Ref.# |  |  |  |  |  | Label |  |  |  |  |  |
|-------|---|---|---|---|---|-------|---|---|---|---|---|
| | | | | | | | Ref.# | Ref.# | Ref.# | Ref.# | Ref.# |
| 35015 | 15 | 36 | 46 | 21 | 14 | | 2827 | 2827 | 2829 | - | - |
| 35030 | 30 | 36 | 61 | 21 | 29 | | 2827 | 2827 | 2829 | - | - |
| 45035 | 35 | 45 | 51 | 31 | 18 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 35040 | 40 | 36 | 68 | 21 | 36 | | 2827 | 2827 | 2829 | - | - |
| 35050 | 50 | 36 | 83 | 21 | 51 | | 2827 | 2827 | 2829 | - | - |
| 45060 | 60 | 45 | 64 | 31 | 31 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45075 | 75 | 45 | 79 | 31 | 46 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45100 | 100 | 45 | 96 | 31 | 63 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45106 | 100 | 60 | 83 | 31 | 41 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45125 | 125 | 45 | 107 | 31 | 74 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45150 | 150 | 45 | 133 | 31 | 100 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45156 | 150 | 60 | 102 | 31 | 60 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45206 | 200 | 60 | 121 | 31 | 79 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45256 | 250 | 60 | 139 | 31 | 97 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45306 | 300 | 60 | 158 | 31 | 116 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45406 | 400 | 60 | 193 | 31 | 150 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45407 | 400 | 75 | 139 | 31 | 90 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| 45607 | 600 | 75 | 188 | 31 | 138 | | 3827 | 3827 | 3829 | 3833 | - |

*TE – tamper-evident with break-away ring or liner (OneLiner®) / **Int. Des. – integrated desiccant / ***CR – child-resistant / ****SF – senior-friendly

- Product features**
- 18 Duma® Twist-Off sizes ranging from 15–600 ml
 - Material: container HDPE, closure PP
 - Tamper-evident
 - Available with:
 - Child-resistant closure
 - Senior-friendly closure, with and without child-resistance
 - Integrated and mounted desiccant 1–6 gr.
 - Duma® OneLiner® for the US market
 - A thick wall (some container sizes)
 - FDA registered, DMF type III, DMF no. 12077
 - Other sizes available on request

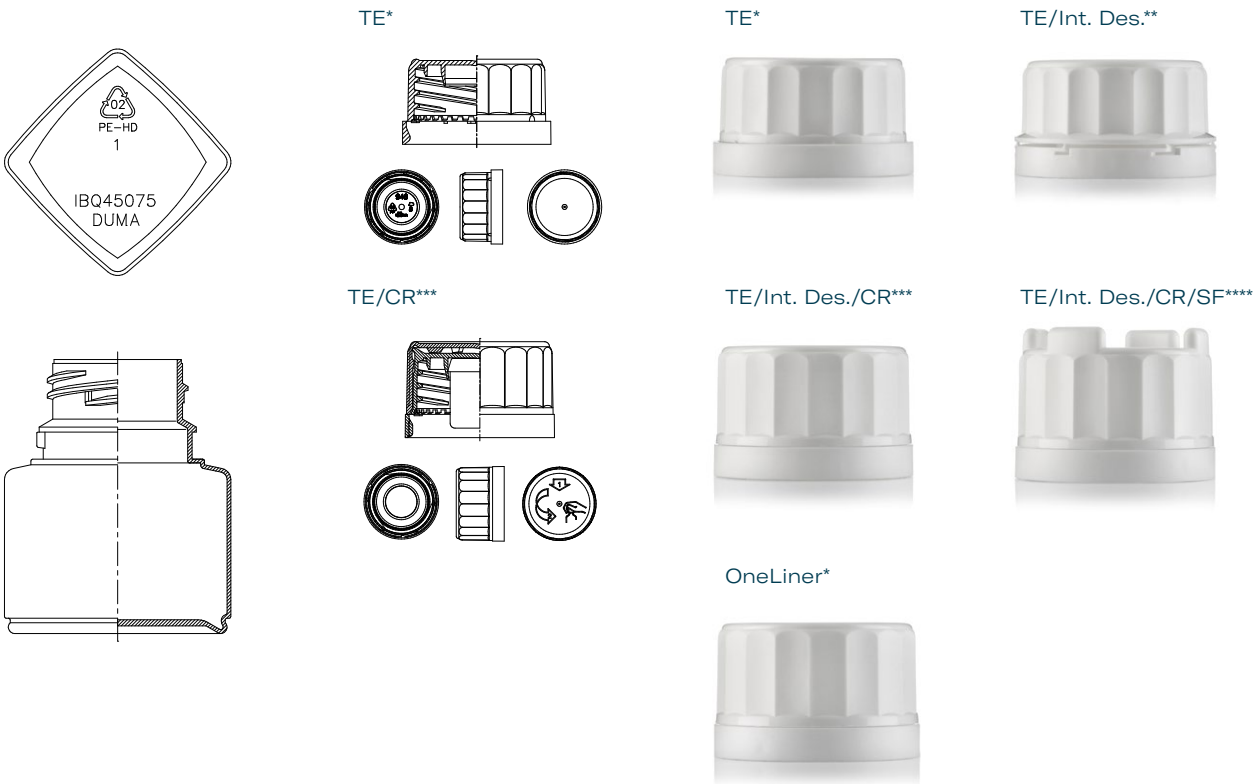
- Technical features**
- Containers produced by injection blow molding/ blow molding
 - Closures produced by injection molding
 - Manufactured under clean-room conditions

Duma® Twist-Off Q

screw system



specifications



Duma® Twist-Off Q

| Ref.# | | | | | | | | | | | |
|--------|-----|----|-----|----|-----|--|-------|-------|-------|-------|--------|
| | ml | mm | mm | mm | mm | | Ref.# | Ref.# | Ref.# | Ref.# | Ref.# |
| Q35030 | 30 | 37 | 57 | 21 | 24 | | 2827 | 2827 | 2829 | - | - |
| Q35040 | 40 | 37 | 66 | 21 | 30 | | 2827 | 2827 | 2829 | - | - |
| Q35050 | 50 | 37 | 75 | 21 | 41 | | 2827 | 2827 | 2829 | - | - |
| Q45075 | 75 | 46 | 72 | 31 | 38 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| Q45100 | 100 | 46 | 87 | 31 | 52 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| Q45150 | 150 | 46 | 113 | 31 | 78 | | 3827 | 3827 | 3829 | 3833 | 3829OL |
| Q45200 | 200 | 46 | 140 | 31 | 105 | | 3827 | 3827 | 3829 | 3833 | 3829OL |

*TE – tamper-evident with break-away ring or liner (OneLiner®) / **Int. Des. – integrated desiccant / ***CR – child-resistant / ****SF – senior-friendly

- Product features**
 - 7 Duma® Twist-Off sizes ranging from 30–200 ml
 - Material: container HDPE, closure PP
 - Tamper-evident
 - Available with
 - Child-resistant closure
 - Senior-friendly closure, with and without child-resistance
 - Integrated and mounted desiccant 1–6 gr.
 - Duma® OneLiner® for the US market
 - FDA registered, DMF type III, DMF no. 12077
 - Other sizes available on request

- Technical features**
 - Containers produced by injection blow molding/ blow molding
 - Closures produced by injection molding
 - Manufactured under clean-room conditions

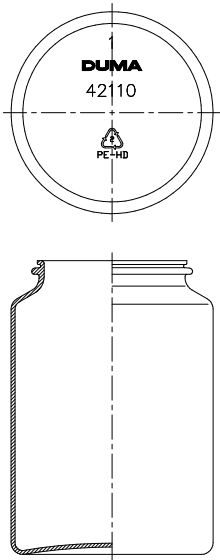


Duma® MG / Duma® Multi-Grip

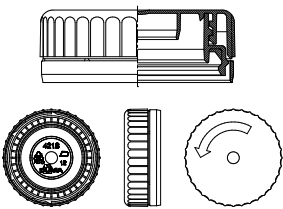
screw system



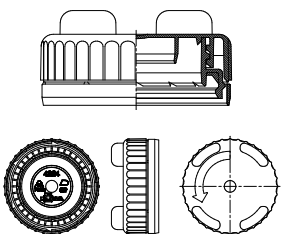
specifications



Duma® MG



Duma® Multi-Grip



Duma® MG / Duma® Multi-Grip

| Ref.# | ml | mm | mm | mm | Label mm | TE* Ref.# | TE/SF** Ref.# |
|-------|-----|----|-----|----|-------------|--------------|------------------|
| 34040 | 40 | 44 | 49 | 27 | 27 | 3418 | 3424 |
| 34050 | 50 | 44 | 57 | 27 | 34 | 3418 | 3424 |
| 34075 | 75 | 44 | 76 | 27 | 52 | 3418 | 3424 |
| 42110 | 110 | 52 | 75 | 35 | 50 | 4218 | 4224 |
| 42150 | 150 | 52 | 97 | 35 | 70 | 4218 | 4224 |
| 42200 | 200 | 64 | 91 | 35 | 63 | 4218 | 4224 |
| 42275 | 275 | 64 | 113 | 35 | 78 | 4218 | 4224 |

*TE – tamper-evident with break-away ring / **SF – senior-friendly

Product features

- 7 Duma® MG/Multi-Grip sizes ranging from 40–275 ml
- Material: container HDPE, cap and adapter HDPE
- Tamper-evident ring clings to container after opening
- Duma® Multi-Grip has easy access for users with limited dexterity
- Minimum distance for unscrewing and resealing of cap
- Cap and adapter are delivered assembled
- Narrow and wide neck design
- Available with mounted desiccant 1–2 gr.
- Other sizes available on request

Technical features

- Containers produced by injection blow molding
- Caps produced by injection molding
- Manufactured under clean-room conditions
- FDA registered, DMF type III, DMF no. 12077

Triveni Round / Triveni Square (induction seal)

screw system



specifications

| Ref.# | | | | | | |
|---------------|-----|----|----|----|-------|-------|
| Ref.# | | | | | Ref.# | Ref.# |
| Triveni Round | | | | | | |
| DB 49 | 30 | 37 | 54 | 28 | X | X |
| DB 07 | 40 | 38 | 60 | 33 | X | X |
| DB 50 | 40 | 38 | 60 | 33 | X | X |
| DB 72 | 50 | 38 | 69 | 33 | X | X |
| DB 77 | 50 | 38 | 69 | 33 | X | X |
| DB 05 | 60 | 40 | 75 | 33 | X | X |
| DB 08 | 60 | 40 | 75 | 33 | X | X |
| DB 47 | 60 | 48 | 59 | 38 | X | X |
| DB 32 | 75 | 44 | 80 | 38 | X | X |
| DB 09 | 75 | 41 | 80 | 38 | X | X |
| DB 89 | 75 | 44 | 76 | 33 | X | X |
| DB 36 | 75 | 44 | 80 | 38 | X | X |
| DB 06 | 85 | 44 | 82 | 33 | X | X |
| DB 69 | 85 | 44 | 82 | 33 | X | X |
| DB 191 | 90 | 44 | 86 | 33 | X | X |
| DB 01 | 100 | 48 | 78 | 38 | X | X |

*CT – continuous thread / **CR – child-resistant

Triveni Round / Triveni Square (induction seal)

Product features

- More than 200 standard SKU's
- Material: container HDPE, closure PP
- Available as child-resistant
- Containers are available with thicker wall/different weight variations (low, medium, high, extra high)
- Containers are available in amber and beige color
- Other sizes available on request

Technical features

- Containers produced by extrusion blow molding/compression blow forming
- Closures produced by injection molding
- Manufactured under clean-room conditions
- FDA registered, DMF type III, DMF no. 11711 for containers, DMF no. 22377 for CT closures
- CDE no. for the bottle: B20190001044
- CDE no. for the cap: B20180003006



| Ref.# | | | | | | |
|-------|--|--|--|--|-------|-------|
| Ref.# | | | | | Ref.# | Ref.# |

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| | | | | | | |
|--------|------|-----|-----|-----|---|---|
| DB 39 | 100 | 48 | 78 | 38 | X | X |
| DB 10 | 120 | 47 | 96 | 38 | X | X |
| DB 30 | 150 | 56 | 94 | 38 | X | X |
| DB 35 | 150 | 56 | 94 | 38 | X | X |
| DB 212 | 175 | 56 | 98 | 38 | X | X |
| DB 130 | 180 | 55 | 100 | 45 | X | X |
| DB 02 | 200 | 56 | 116 | 38 | X | X |
| DB 60 | 200 | 56 | 116 | 38 | X | X |
| DB 136 | 225 | 64 | 111 | 38 | X | X |
| DB 11 | 250 | 67 | 104 | 53 | X | X |
| DB 177 | 250 | 67 | 105 | 38 | X | X |
| DB 19 | 300 | 67 | 121 | 53 | X | X |
| DB 57 | 300 | 67 | 121 | 53 | X | X |
| DB 20 | 400 | 76 | 118 | 53 | X | X |
| DB 21 | 400 | 76 | 118 | 53 | X | X |
| DB 03 | 500 | 76 | 145 | 53 | X | X |
| DB 24 | 625 | 86 | 149 | 53 | X | X |
| DB 33 | 750 | 86 | 172 | 53 | X | X |
| DB 04 | 850 | 99 | 147 | 53 | X | X |
| DB 51 | 950 | 98 | 165 | 53 | X | X |
| DB 23 | 1300 | 99 | 202 | 53 | X | X |
| DB 37 | 1500 | 124 | 174 | 89 | X | – |
| DB 81 | 1500 | 124 | 175 | 53 | X | X |
| DB 68 | 2000 | 124 | 214 | 53 | X | X |
| DB 83 | 2000 | 124 | 219 | 110 | X | – |
| DB 86 | 2500 | 152 | 174 | 89 | X | – |
| DB 70 | 3800 | 152 | 252 | 110 | X | – |

Triveni Square

| | | | | | | |
|--------|-----|----|-----|----|---|---|
| DB 200 | 40 | 30 | 64 | 28 | X | X |
| DB 199 | 480 | 54 | 181 | 28 | X | X |

*CT – continuous thread / **CR – child-resistant

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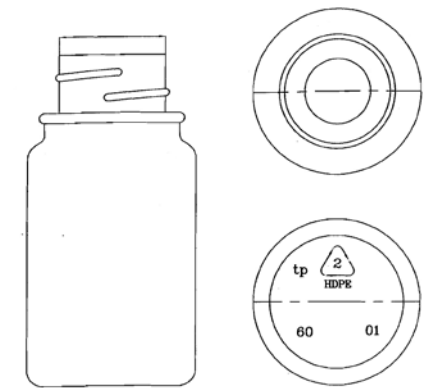


Triveni Dry Syrup (induction seal)

screw system



specifications



- Product features**
- More than 25 standard SKU's
 - Material: container HDPE, closure PP
 - Available as child-resistant
 - Containers are available with thicker wall/different weight variations (low, medium, high)
 - Other sizes available on request

- Technical features**
- Containers produced by extrusion blow molding/injection blow molding
 - Closures produced by injection molding
 - Manufactured under clean-room conditions
 - FDA registered, DMF type III, DMF no. 11711 for containers, DMF no. 22377 for CT closures

| Ref.# | | | | | Ref.# | Ref.# |
|--------|-----|----|-----|----------|-----------|-----------|
| DB 12 | 25 | 32 | 65 | 24 | X | X |
| DB 14 | 60 | 40 | 79 | 28 | X | X |
| DB 15 | 115 | 48 | 94 | 28 | X | X |
| DB 87 | 115 | 48 | 94 | 28 (410) | X | X |
| DB 27 | 150 | 49 | 115 | 28 | X | X |
| DB 17 | 185 | 50 | 124 | 28 | X | X |
| DB 18 | 225 | 57 | 125 | 28 | X | X |
| DB 64 | 250 | 61 | 124 | 28 | X | X |
| DB 171 | 60 | 40 | 79 | 28 | X | X |
| DB 201 | 150 | 49 | 121 | 28 | X | X |
| DB 99 | 185 | 50 | 124 | 28 | X | X |
| DB 65 | 250 | 61 | 124 | 28 | X | X |
| DB 75 | 250 | 61 | 127 | 28 (410) | X | X |

| White colour | | | | | | |
|--------------|-----|----|-----|----|---|---|
| DB 84 | 240 | 56 | 143 | 28 | X | X |
| DB 85 | 480 | 70 | 175 | 28 | X | X |

| Translucent | | | | | | |
|-------------|-----|----|-----|----|---|---|
| DB 95 | 480 | 70 | 175 | 28 | X | X |

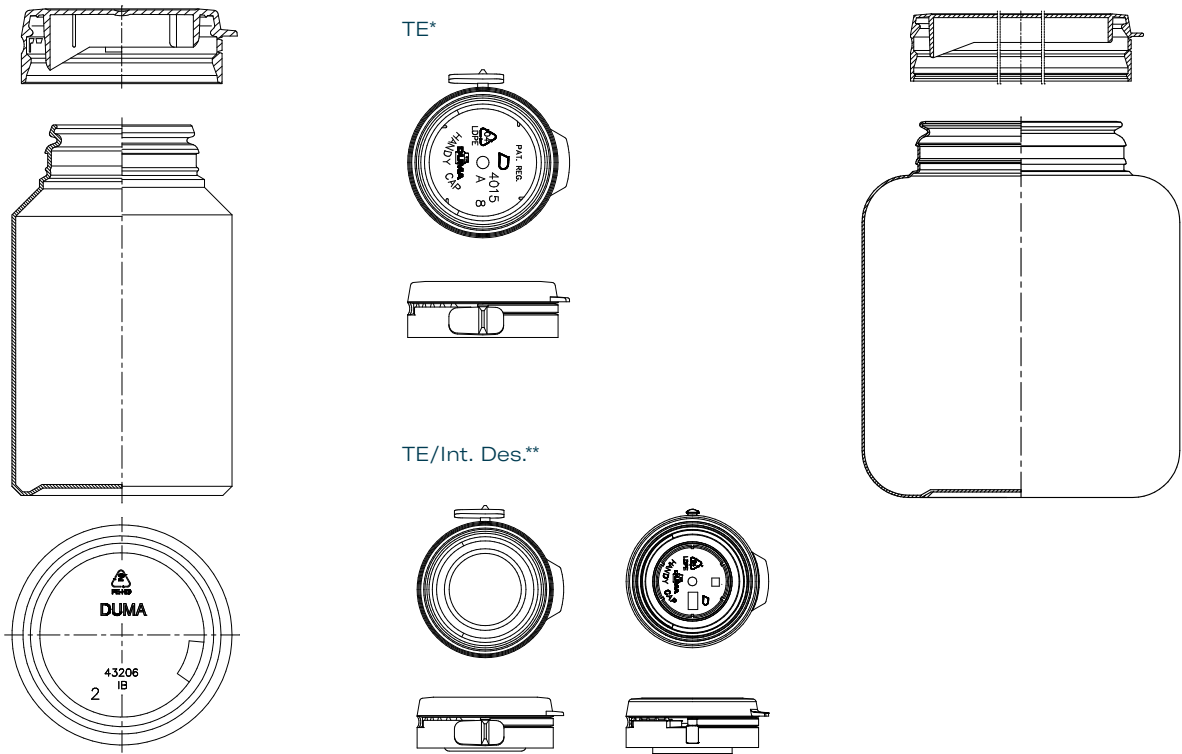
*CT – continuous thread / **CR – child-resistant

Duma® Standard

snap-on system



specifications



Duma® Standard

| Ref.# | | | | | | | | |
|--------|------|-----|-----|----|-----|-------|-------|--------|
| | ml | mm | mm | mm | mm | Ref.# | Ref.# | Ref.# |
| 31050 | 50 | 45 | 61 | 21 | 33 | 2813 | – | – |
| 31075 | 75 | 45 | 73 | 21 | 45 | 2813 | – | – |
| 31100 | 100 | 45 | 88 | 21 | 60 | 2813 | – | – |
| 43105 | 100 | 51 | 78 | 33 | 52 | 4015 | 4015 | 4015MT |
| 31125 | 125 | 45 | 106 | 21 | 76 | 2813 | – | – |
| 43156 | 150 | 60 | 84 | 33 | 55 | 4015 | 4015 | 4015MT |
| 43206 | 200 | 60 | 101 | 33 | 72 | 4015 | 4015 | 4015MT |
| 43307 | 300 | 69 | 120 | 33 | 82 | 4015 | 4015 | 4015MT |
| 43407 | 400 | 69 | 148 | 33 | 111 | 4015 | 4015 | 4015MT |
| 43507 | 500 | 69 | 176 | 33 | 139 | 4015 | 4015 | 4015MT |
| 952000 | 2000 | 142 | 168 | 82 | 100 | 9022 | – | – |
| 952500 | 2500 | 142 | 201 | 82 | 134 | 9022 | – | – |
| 953000 | 3000 | 142 | 234 | 82 | 165 | 9022 | – | – |

* TE - tamper-evident with break-away ring
** TE/Int. Des. - integrated desiccant. Can be delivered with two different tamper-evident features

- Product features**
- 13 Duma® Standard sizes ranging from 50–3000 ml
 - Material: container HDPE, cap LDPE
 - Tamper-evident
 - Snap lock system
 - Narrow neck design
 - Handy cap easy-open system
 - Available with integrated desiccant 4 gr.
 - Caps available in different colors
 - Other sizes available on request

- Technical features**
- Containers produced by injection blow molding/blow molding
 - Caps produced by injection molding
 - Manufactured under clean-room conditions
 - FDA registered, DMF type III, DMF no. 12077



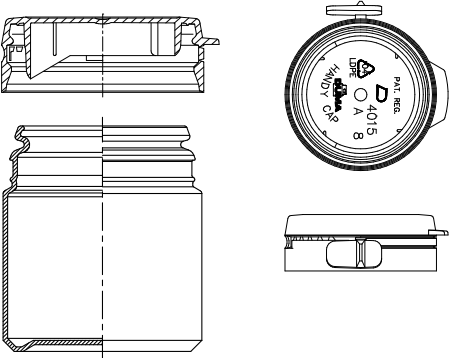
Duma® Special

snap-on system

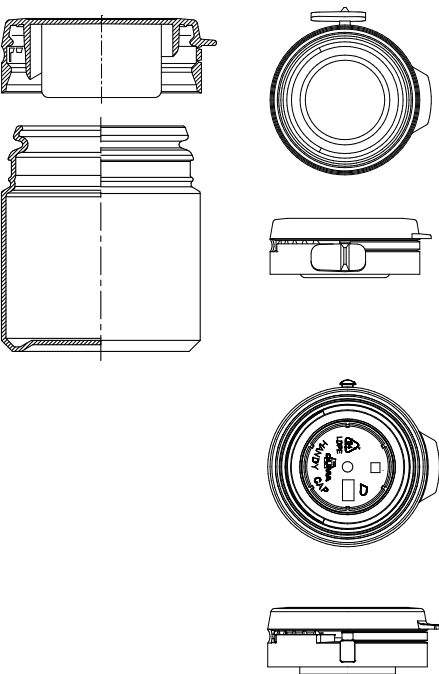


specifications









TE*



TE/Int. Des.**



Duma® Special

| Ref.# |  |  |  |  |  |  |  |  |
|--------|---|---|---|---|---|---|---|---|
| | ml | mm | mm | mm | mm | Ref.# | Ref.# | Ref.# |
| 31030 | 30 | 36 | 54 | 21 | 31 | 2813 | – | – |
| 43050 | 50 | 45 | 51 | 33 | 32 | 4015 | 4015 | 4015MT |
| 43075 | 75 | 45 | 68 | 33 | 49 | 4015 | 4015 | 4015MT |
| 43100 | 100 | 45 | 85 | 33 | 66 | 4015 | 4015 | 4015MT |
| 43150 | 150 | 45 | 120 | 33 | 101 | 4015 | 4015 | 4015MT |
| 65150 | 150 | 67 | 70 | 54 | 44 | 6017 | – | – |
| 65250 | 250 | 67 | 90 | 54 | 65 | 6017 | – | – |
| 65300 | 300 | 67 | 113 | 54 | 88 | 6017 | – | – |
| 65400 | 400 | 67 | 144 | 54 | 116 | 6017 | – | – |
| 65500 | 500 | 67 | 177 | 54 | 151 | 6017 | – | – |
| 95500 | 500 | 100 | 92 | 82 | 61 | 9022 | – | – |
| 95750 | 750 | 100 | 124 | 82 | 93 | 9022 | – | – |
| 951000 | 1000 | 100 | 155 | 82 | 124 | 9022 | – | – |
| 951250 | 1250 | 100 | 187 | 82 | 153 | 9022 | – | – |
| 951500 | 1500 | 100 | 218 | 82 | 185 | 9022 | – | – |

* TE - tamper-evident with break-away ring
** TE/Int. Des. - integrated desiccant. Can be delivered with two different tamper-evident features

- Product features**
- 15 Duma® Special sizes ranging from 30–1500 ml
 - Material: container HDPE, cap LDPE
 - Tamper-evident
 - Snap lock system
 - Wide neck design
 - Handy cap easy-open system
 - Available with integrated desiccant 4 gr.
 - Caps available in different colors
 - Other sizes available on request

- Technical features**
- Containers produced by injection blow molding/blow molding
 - Caps produced by injection molding
 - Manufactured under clean-room conditions
 - FDA registered, DMF type III, DMF no. 12077

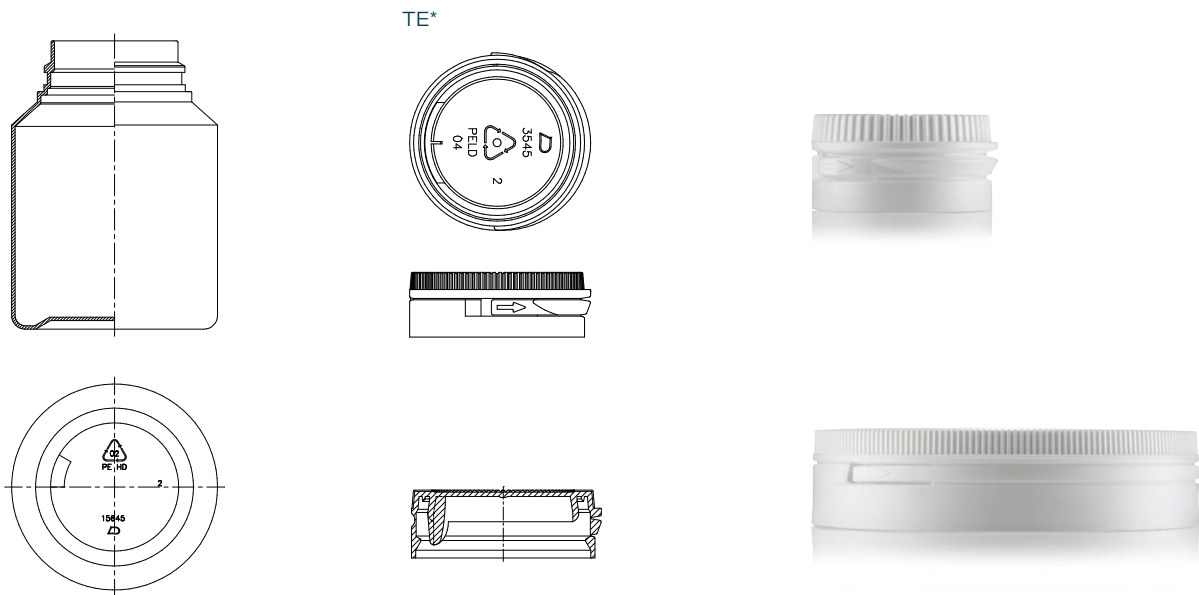


Dudek™

snap-on system



specifications



Dudek™

| Ref.# | | | | | | |
|--------|------|-----|-----|----|-----|------|
| 1530 | 15 | 30 | 45 | 22 | 26 | 2230 |
| 3030 | 30 | 36 | 54 | 22 | 31 | 2230 |
| 5045 | 50 | 45 | 51 | 35 | 31 | 3545 |
| 07545 | 75 | 45 | 68 | 35 | 48 | 3545 |
| 10045 | 100 | 45 | 85 | 35 | 65 | 3545 |
| 12545 | 125 | 45 | 96 | 35 | 76 | 3545 |
| 15645 | 150 | 60 | 84 | 35 | 54 | 3545 |
| 15067 | 150 | 67 | 70 | 54 | 47 | 5467 |
| 25067 | 250 | 67 | 90 | 54 | 68 | 5467 |
| 30067 | 300 | 67 | 113 | 54 | 91 | 5467 |
| 40067 | 400 | 67 | 145 | 54 | 123 | 5467 |
| 50067 | 500 | 67 | 177 | 54 | 155 | 5467 |
| 50099 | 500 | 100 | 93 | 83 | 62 | 8399 |
| 75099 | 750 | 100 | 124 | 83 | 94 | 8399 |
| 100099 | 1000 | 100 | 156 | 83 | 125 | 8399 |
| 125099 | 1250 | 100 | 189 | 83 | 157 | 8399 |
| 150099 | 1500 | 100 | 221 | 83 | 188 | 8399 |

*TE – tamper-evident with break-away ring

Product features

- 17 Dudek™ sizes ranging from 15–1500 ml
- Material: container HDPE, cap LDPE
- Tamper-evident
- Snap lock system
- Narrow and wide neck design
- Dudek™ cap easy-open system
- Caps available in various colors
- Other sizes available on request

Technical features

- Containers produced by injection blow molding/blow molding
- Caps produced by injection molding
- Manufactured under clean-room conditions
- FDA registered, DMF type III, DMF no. 12077



Duma® Pocket / CR 100 / CR Box

Duma® Pocket

- Easy to dispense
- Easy to bring along
- Good surface for labelling

Duma® Pocket CR 100

- Child-resistant feature
- New ergonomic design – easy to dispense
- Integrated cap with desiccant solutions

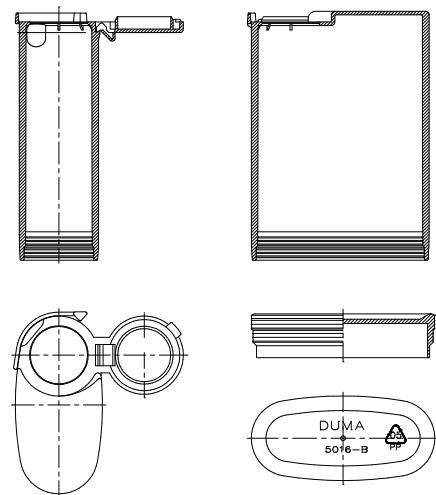
Duma® Pocket CR Box

- Child-resistant feature
- Press and hold on box part by one hand and remove top by another hand
- Choose the color you like

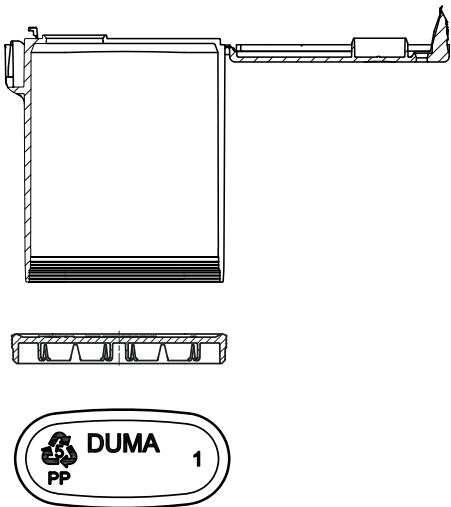


specifications

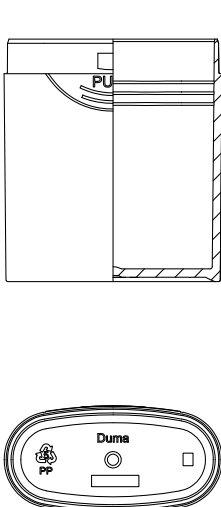
Duma® Pocket



Duma® Pocket CR 100



Duma® Pocket CR Box



Duma® Pocket / CR 100 / CR Box

| Ref.# | ml | mm | mm | mm | mm | Label | Ref.# |
|-------|----|----|----|----|----|-------|-------|
|-------|----|----|----|----|----|-------|-------|

Duma® Pocket

| | | | | | | |
|-------|----|---------|----|----|----|-------|
| 3016A | 30 | 50 x 24 | 50 | 16 | 39 | 5016B |
| 5016A | 50 | 50 x 24 | 70 | 16 | 59 | 5016B |

- 2 Duma® Pocket sizes: 30 and 50 ml
- Material: Duma® Pocket PP, Duma® Pocket Base PP
- Tamper-evident
- Integrated cap with visual sealing
- Oval design
- Full diameter filling via base
- Produced by injection moulding
- Manufactured under clean-room conditions
- FDA registered, DMF type III, DMF no. 12077
- Other sizes available on request

TE – tamper-evident with break-away ring

Duma® Pocket CR 100

| | | | | | | |
|--------|-----|---------|----|---|-----|--------|
| 10018C | 100 | 70 x 31 | 78 | – | 125 | 10018D |
|--------|-----|---------|----|---|-----|--------|

- Child-resistant feature
- New ergonomic design – easy to dispense
- Integrated cap with desiccant solutions

TE – tamper-evident / CR – child-resistant

Duma® Pocket CR Box

| | | | | | | |
|--------|----|-----------|----|---|----|-------|
| 04546C | 40 | 49,5 x 24 | 56 | – | 36 | 4546L |
|--------|----|-----------|----|---|----|-------|

- Child-resistant feature
- Press and hold on box part by one hand and remove top by another hand
- Choose the color you like

CR – child-resistant

Ophthalmic, nasal and parenteral applications

Our products for ophthalmic and nasal applications include bottles and droppers in LDPE and nasal sprays with pumps.

Other materials, sizes and designs are available, as are closures with child-resistant or senior-friendly features.



Ophthalmic, nasal and parenteral applications

Ophthalmic



10
Dropper bottles –
System A
Standard bottle



11
Accessories
System A
Caps with short droppers




12
Dropper bottles –
System E / F
Standard US bottle



13
Accessories
System E / F
Cap with fixed TE-ring
Sleeved cap

Nasal



14
Spray and pump systems:
Snap-on bottles /
Crimp bottles

Parenteral



15
Monolayer plastic vials

Dropper bottles – System A (LDPE / HDPE / PET)



specifications



Dropper bottles – System A (LDPE / HDPE / PET)

| Ref.# |  |  |  |  |  |
|-------|---|---|---|---|---|
| LDPE | | | | | |
| 35034 | 2,0 | 3,0 | 17,0 | 34,5 | 11,0 |
| 35036 | 5,0 | 7,7 | 21,2 | 42,4 | 14,0 |
| 35035 | 10,0 | 12,5 | 24,1 | 51,8 | 14,0 |
| 35048 | 10,0 | 12,2 | 24,1 | 51,8 | 14,0 |
| 35037 | 15,0 | 18,5 | 25,3 | 63,0 | 14,0 |
| 35225 | 25,0 | 26,4 | 30,7 | 65,3 | 14,0 |
| 35030 | 25,0 | 28,5 | 30,7 | 65,3 | 14,0 |
| 35038 | 30,0 | 34,9 | 30,8 | 75,0 | 14,0 |
| 35080 | 50,0 | 62,0 | 39,1 | 81,4 | 14,0 |
| 32266 | 60,0 | 68,5 | 39,0 | 87,8 | 14,0 |
| 32293 | 110,0 | 120,0 | 45,3 | 107,0 | 14,0 |
| 32295 | 120,0 | 140,0 | 45,0 | 120,5 | 14,0 |
| 32271 | 280,0 | 317,0 | 60,0 | 147,5 | 14,1 |
| HDPE | | | | | |
| 35046 | 5,0 | 8,0 | 21,2 | 42,5 | 14,0 |
| 35003 | 10,0 | 13,2 | 24,1 | 51,8 | 14,0 |
| 35032 | 15,0 | 18,5 | 25,3 | 63,0 | 14,0 |
| 35041 | 30,0 | 34,9 | 30,6 | 75,0 | 14,0 |
| 32333 | 50,0 | 61,5 | 39,1 | 81,2 | 14,0 |
| 32334 | 60,0 | 68,3 | 39,1 | 87,8 | 14,0 |
| 32331 | 110,0 | 125,0 | 45,3 | 107,5 | 14,0 |
| 32327 | 285,0 | 301,0 | 58,2 | 147,5 | 14,0 |
| 33067 | 360,0 | 382,0 | 58,2 | 181,0 | 14,0 |
| PP | | | | | |
| 35047 | 5,0 | 7,7 | 21,2 | 42,4 | 14,0 |
| PET | | | | | |
| 37010 | 10 | 13,2 | 24,1 | 51,8 | 14,0 |

- Product features**
- 24 sizes ranging from 2 to 360 ml
 - Material: bottle LDPE, HDPE, PP, PET
 - Available in other materials, sizes and designs
 - Accessories see page 34 and 35
 - Gerresheimer offers full solution for irradiated products incl. validation
 - ETO sterilization on request

- Technical features**
- Bottles produced by injection blow molding / extrusion blow molding / injection stretch blow molding
 - Manufactured under clean-room conditions

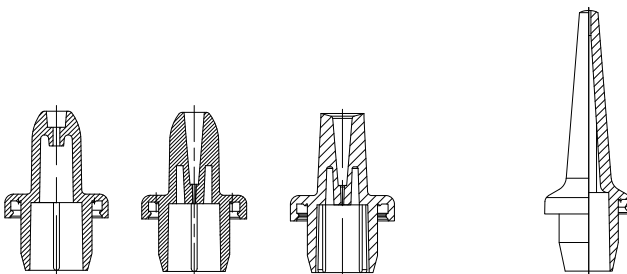
Dropper bottles – System A

Accessories



Dropper

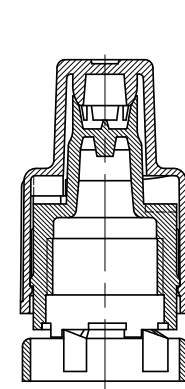
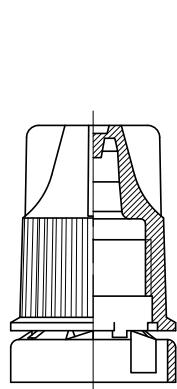
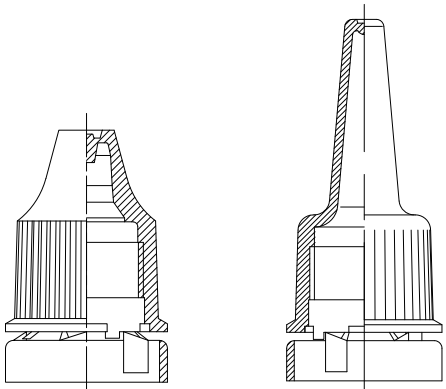
Nozzle



Tamper-evident screw cap

Tamper-evident wing screw cap

Child-resistant tamper-evident screw cap



specifications

| | Ref.# | Drops +/- 30% | | Ref.# | comments |
|---------|-------|------------------|-------------------------------|-------|--|
| Dropper | 14110 | 21 | Tamper-evident screw cap | 15190 | Available in white |
| | 14166 | 23 | | 15197 | Available in white, fits ref 14214 |
| | 14182 | 23 | | 15233 | Available in colors |
| | 14213 | 21 | | 15198 | Available in colors, fits ref 14214 |
| | 14214 | 28 | | 15255 | Fits ref 14216, 35034 |
| | 14216 | 25 | | 15207 | Fits ref 14180 |
| | 14219 | 13 | | 15250 | Fits ref 14110, 14166, 14182, 14213, 14219 |
| Nozzle | 14180 | - | Tamper-evident wing screw cap | 91176 | Fits ref 14110, 14166, 14182, 14213, 14219 |
| | | | | | |

Product features

- Material: dropper LDPE, nozzle LDPE, tamper-evident screw cap HDPE, tamper-evident wing screw cap HDPE, child-resistant tamper-evident screw cap HDPE / PP
- Available in other materials, sizes and designs
- Droppers, nozzles and caps fit bottle sizes on page 34 and 35
- DropAid as an application that helps to open the bottle makes it easy and simple to positioning the dropper correctly above the eye

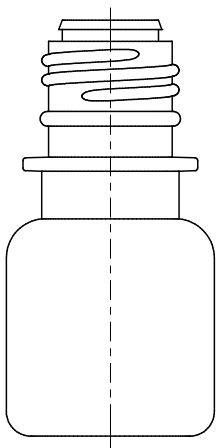
Technical features






- Droppers, nozzle and caps produced by injection molding
- Manufactured under clean-room conditions

Dropper bottles – System E / F



specifications



| Ref.# |  |  |  |  |  |
|-------|---|---|--|---|---|
| LDPE | | | | | |
| 35178 | 5 | 7,2 | 21,2 | 42,4 | 14,0 |
| 35179 | 10 | 12,4 | 24,1 | 51,8 | 14,0 |
| 35180 | 15 | 18,2 | 25,3 | 63,0 | 14,0 |
| 35181 | 30 | 34,0 | 30,8 | 75,0 | 14,0 |
| PP | | | | | |
| 35182 | 5 | 7,5 | 21,2 | 42,4 | 14,0 |

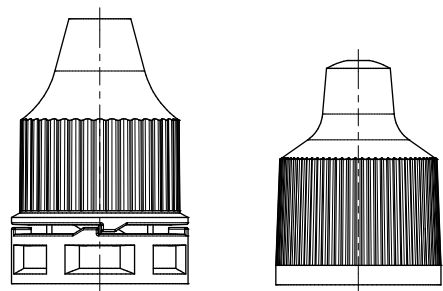
- Product features**
- 5 sizes ranging from 5 to 30 ml
 - Material: bottle LDPE, PP
 - Accessories see page 37
 - Gerresheimer offers full solution for irradiated products incl. validation
 - ETO sterilization on request

- Technical features**
- Bottles produced by injection blow molding
 - Manufactured under clean-room conditions

Dropper bottles – System E / F
Accessories



specifications



System E
Cap with fixed
TE-ring

System F
Sleeved cap

- Product features**
- Material: dropper LDPE, tamper-evident screw cap and sleeved cap HDPE
 - Caps and droppers fit bottle sizes on page 37

- Technical features**
- Caps produced by injection molding
 - Manufactured under clean-room conditions

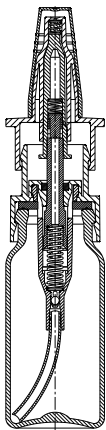
| Caps System E | Ref.# | Comments |
|----------------------------------|-------|----------------|
| Tamper-evident screw cap white | 15033 | |
| Tamper-evident screw cap colored | 15035 | |
| Tamper-evident screw cap white | 15034 | fits ref 14214 |
| Tamper-evident screw cap colored | 15036 | fits ref 14214 |
| Caps System F | | |
| Tamper-evident screw cap white | 15009 | |
| Tamper-evident screw cap colored | 15031 | |
| Tamper-evident screw cap white | 15010 | fits ref 14214 |
| Tamper-evident screw cap colored | 15032 | fits ref 14214 |






| Droppers System E / F | Ref.# | Drops +/- 30% |
|-----------------------|-------|------------------|
| | 14166 | 23 |
| | 14182 | 23 |
| | 14110 | 21 |
| | 14213 | 21 |
| | 14219 | 13 |
| | 14214 | 28 |

Spray and pump systems: Snap-on bottles / Crimp bottles



Snap-on bottles








| Ref.# |  |  |  |  |  |
|-------|---|---|--|---|---|
| 35022 | 10,0 | 16,3 | 24,0 | 52,7 | 19,85 |
| 35023 | 15,0 | 18,0 | 24,0 | 58,0 | 19,85 |
| 35014 | 20,0 | 23,0 | 29,0 | 53,0 | 19,85 |
| 35176 | 20,0 | 25,5 | 31,0 | 50,7 | 19,95 |

- Product features**
- 4 sizes ranging from 10 to 20 ml
 - Material: bottle HDPE
 - Available int other materials, sizes and designs
 - Reference to spray/pump supplier on request

- Technical features**
- Bottles produced by injection blow molding
 - Manufactured under clean-room conditions

Crimp bottles

| Ref.# |  |  |  |  |  |
|-------|---|---|--|---|---|
| 35175 | 15,0 | 19,5 | 25,5 | 54,4 | 20,0 |
| 35090 | 20,0 | 25,2 | 31,0 | 50,7 | 20,1 |

- Product features**
- 2 sizes ranging from 15 to 20 ml
 - Material: bottle HDPE
 - Dedicated for crimp pumps

- Technical features**
- Bottles produced by injection blow molding
 - Manufactured under clean-room conditions



Monolayer plastic vials



Our monolayer plastic vials unite the best properties of plastic and glass packaging for liquid medications. The vials are available with a single-layer structure based on Cyclic Olefin Polymer (COP). The vials offer inert contact surface and have been proven with various pharma applications in the market. They also deliver a unique packaging safety feature to manufacturers of toxic or high potency drug solutions. The monolayer plastic vials are available in the sizes of 2, 5, 10 and 50 ml and manufactured under clean room conditions at our plant in Boleslawiec, Poland. The Boleslawiec facility is certified as compliant with ISO 9001, ISO 14001 and ISO 15378. This site has registered a DMF with the FDA (USA).

Product characteristics

- Break resistance
- Inert against high and low pH value (no delamination)
- Low absorption (protein derived active ingredients)
- Excellent drainability
- No heavy metal ions release
- Available in 2, 5, 10 and 50









Product offering

- Monolayer plastic vials based on COP – standard and ready-to-sterilize (includes certified Bioburden, Endotoxin and Particle level)

Monolayer plastic vials

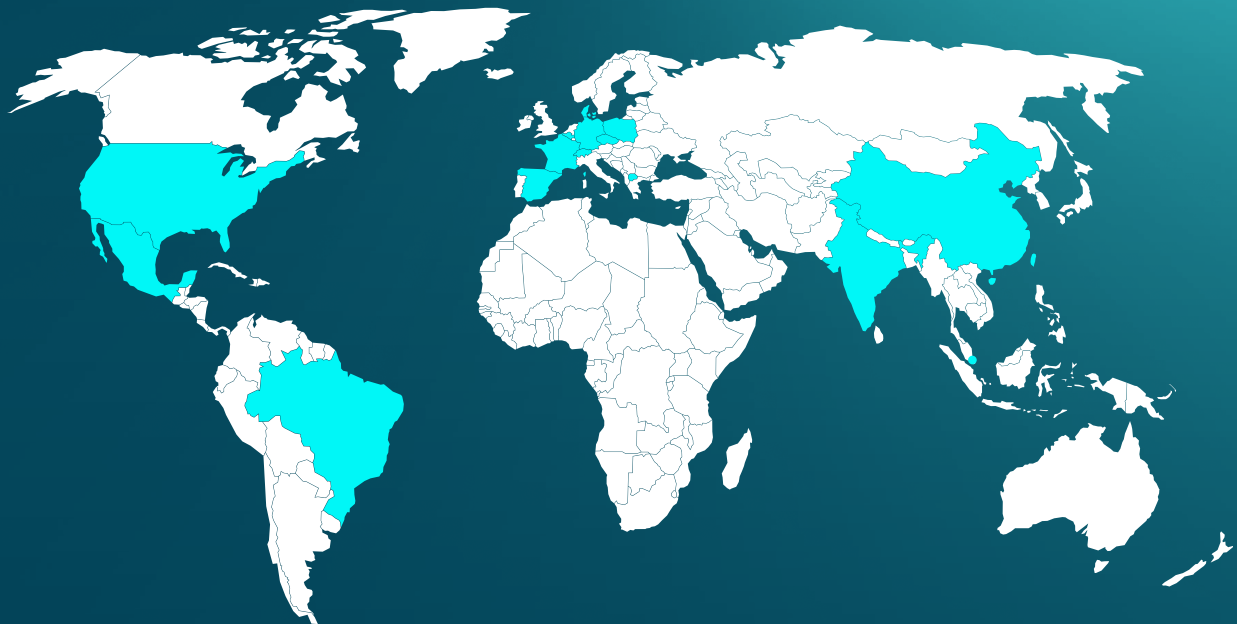


specifications

| Ref.# | |  |  |  |  |  |  |  |  |
|-------|---------------|---|---|---|---|---|---|---|---|
| 39001 | EN ISO 8362-1 | 2 | 3,5 | 16 | 35 | 3,6 | 13 | 7 | 2,7 |
| 39002 | EN ISO 8362-1 | 5 | 9,1 | 22 | 40 | 3,6 | 20 | 12,6 | 4,9 |
| 39003 | EN ISO 8362-1 | 10 | 12,5 | 24 | 45 | 3,6 | 20 | 12,6 | 6,1 |
| 39005 | EN ISO 8362-4 | 50 | 67 | 42,5 | 73 | 3,8 | 20 | 12,6 | 16 |



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