

Pharmaceutical primary packaging

Plastic packaging solutions for solid formulations

gerresheimer

About Gerresheimer Innovating for a better life Gerresheimer is an innovative system and solution provider and a global partner for the pharma, biotech, and cosmetic industries. The company offers a comprehensive portfolio of pharmaceutical containment solutions, drug delivery systems and medical devices as well as solutions for the health industry. The product range includes digital solutions for therapy support, medication pumps, syringes, pens, auto-injectors, and inhalers as well as vials, ampoules, tablet containers, infusion, dropper and syrup bottles and more. Gerresheimer ensures the safe delivery and reliable administration of drugs to the patient. With 36 production sites in 16 countries in Europe, America, and Asia, Gerresheimer has a global presence and produces locally for regional markets. With over 11,000 employees, the company generated revenues of around €1.82bn in 2022. Gerresheimer AG is listed in the MDAX on the Frankfurt Stock Exchange ISIN: DE000A0LD6E6.

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



Liquid formulations



Ophthalmic and nasal applications





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.

- Quality attitude and team work

quality culture

A strong quality culture supports our efforts to

shared beliefs, values and behaviour patterns.

deliver excellent quality. The culture is defined by our

- Continuous improvements
- Systematic problem solving
- Quality by design

Strong

- Stable, robust, reliable and validated processes
- Risk-based approach
- 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

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







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

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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)



Duma®
Twist-Off



Z Duma®

Twist-Off Q



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Duma® MG/Multi-Grip



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Europe Seal (induction seal)



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Triveni Round / Triveni Square (induction seal)



6

Triveni Dry Syrup (induction seal)



Triveni Black Lining (induction seal)



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



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Duma® Standard



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Dudek™

Special design



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Duma® Pocket

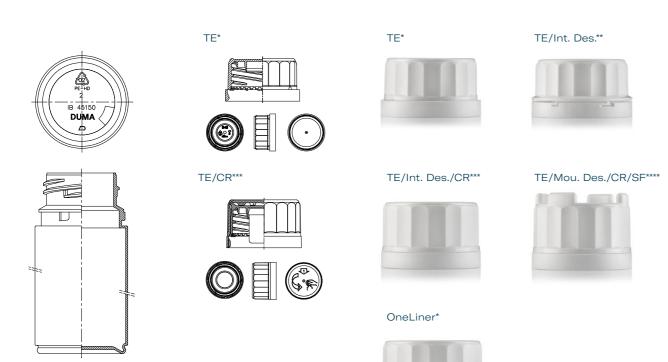


Duma® Twist-Off

screw system



specifications



Duma® Twist-Off

							TE/	TE/ Int. Des./	TE/ Mou. Des./	
	П	П	⊼ □	_	Label	TE*	Int. Des.**	CR***	CR/SF***	OneLiner*
	ml	▶mm		mm	mm					
Ref.#			▼	1 1	⊻	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

Technical features

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

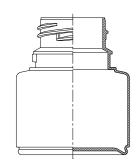
Duma® Twist-Off Q

screw system

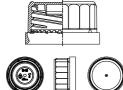


specifications









TE/CR***



TE*



TE/Int. Des.**

TE/Mou. Des./CR/SF****

TE/Int. Des./CR***



OneLiner*



Duma® Twist-Off Q

					Label	TE*	TE/ Int. Des.**	Int. Des./ CR***	Mou. Des./ CR/SF****	OneLiner*
Ref.#	ml	mm	a a a a a a a a a a a a a a a a a a a	mm	mm T	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 $^{\rm @}$ 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

Technical features

- Containers produced by injection blow molding/ blow molding

TE/

TE/

- Closures produced by injection molding
- Manufactured under clean-room conditions

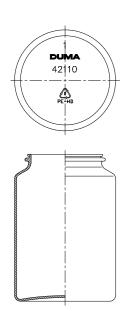


Duma® MG / Duma® Multi-Grip

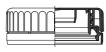
screw system



specifications







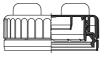


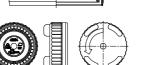
















Duma® MG / Duma® Multi-Grip

Ref.#	ml	mm	E V	Mm mm	Label	TE*	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

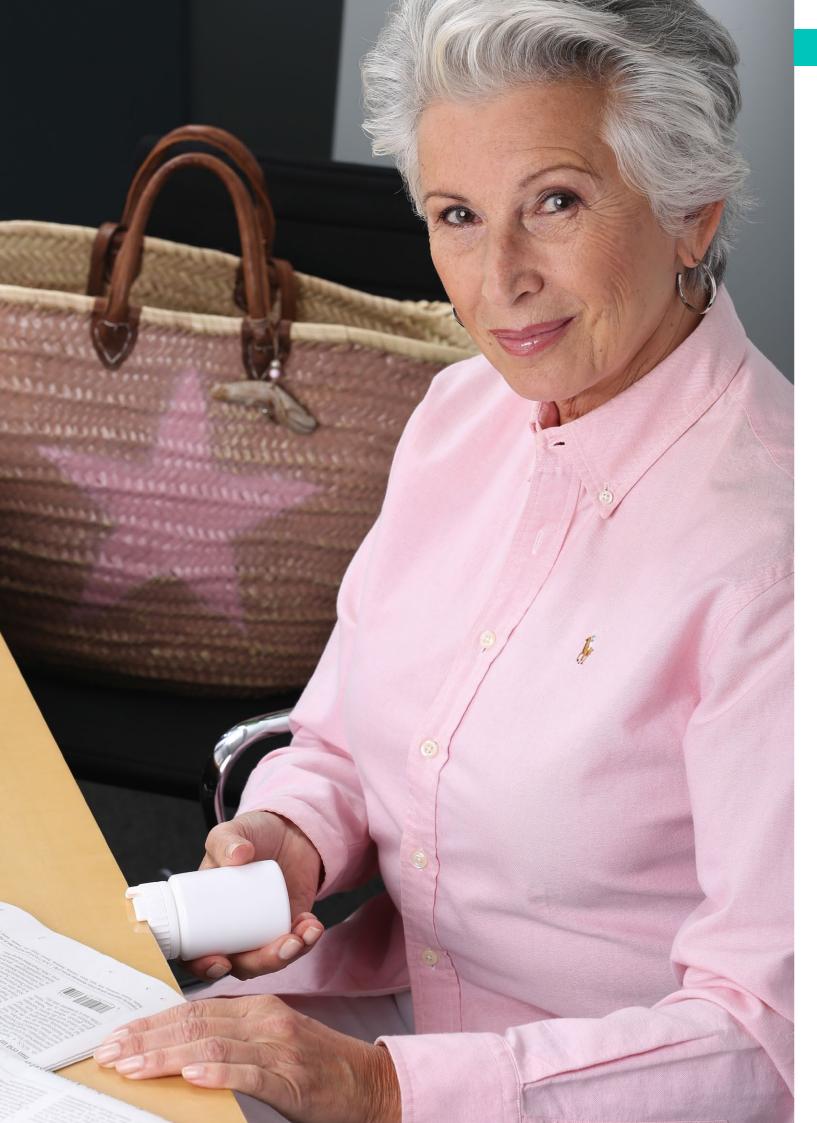
Product features

- 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
- Minumum 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.

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

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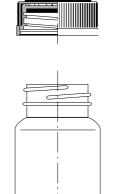


Europe Seal (induction seal)

screw system



specifications



Ref.#	mi	▶ mm ◀	a constant	mm mm	Label	Ref.#
23330	30	45	44	31	17	96038
35050	50	40	71	25	42	96032
23360	60	45	64	31	37	96038
35051	70	45	71	31	42	96038
23312	120	54	84	31	52	96038
23318	185	54	112	31	80	96038

Product features

- 6 Europe Seal sizes ranging from 30-185 ml
- Child-resistant closure with multilayer sealing pad for inductive welding
- Available aluminium membranes: standard, easy to pierce, easy to open

Technical features

- Containers produced by blow molding
- Closures produced by injection molding
- Manufactured under clean-room conditions

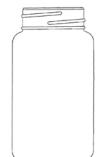
Triveni Round / Triveni Square (induction seal)

screw system



specifications







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Triveni Round									
DB 49	30	37	54	28	X	Х			
DB 07	40	38	60	33	Х	Х			
DB 50	40	38	60	33	×	x			
DB 72	50	38	69	33	×	X			
DB 77	50	38	69	33	×	×			
DB 05	60	40	75	33	X	X			
DB 08	60	40	75	33	×	X			
DB 47	60	48	59	38	X	X			
DB 32	75	44	80	38	×	X			
DB 09	75	41	80	38	X	X			
DB 89	75	44	76	33	×	X			
DB 36	75	44	80	38	X	X			
DB 06	85	44	82	33	×	X			
DB 69	85	44	82	33	X	X			

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

90

100

DB 191

DB 01

Continued on next page

33

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 variantions (low, medium, high, extra high)
- Containers are available in amber and beige color

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



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DB 39	100	48	78	38	Х	х					
DB 10	120	47	96	38	Х	Х					
DB 30	150	56	94	38	Х	Х					
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	Х	X					
DB 11	250	67	104	53	Х	X					
DB 177	250	67	105	38	Х	X					
DB 19	300	67	121	53	X	X					
DB 57	300	67	121	53	Х	Х					
DB 20	400	76	118	53	X	X					
DB 21	400	76	118	53	Х	Х					
DB 03	500	76	145	53	X	X					
DB 24	625	86	149	53	Х	Х					
DB 33	750	86	172	53	×	Х					

147

165

202

174

175

214

219

174

252

98

99

124

124

124

124

152

152

53

53

53

89

53

53

110

89

110

Χ

X

X

Triveni	Square

DB 04

DB 51

DB 23

DB 37

DB 81

DB 68

DB 83

DB 86

DB 70

DB 200	40	30	64	28	×	Х
DB 199	480	54	181	28	X	×

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

850

950

1300

1500

1500

2000

2000

2500

3800

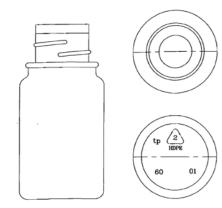
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Triveni Dry Syrup (induction seal)

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 variantions (low, medium, high)

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.#	ml	▶ mm ◀	E E	mm	CT* Ref.#	CR** Ref.#
DB 12	25	32	65	24	×	Х
DB 14	60	40	79	28	X	Х
DB 15	115	48	94	28	×	Х
DB 87	115	48	94	28(410)	X	Х
DB 27	150	49	115	28	×	X
DB 17	185	50	124	28	X	Х
DB 18	225	57	125	28	×	Х
DB 64	250	61	124	28	X	Х
DB 171	60	40	79	28	×	Х
DB 201	150	49	121	28	X	Х
DB 99	185	50	124	28	x	Х
DB 65	250	61	124	28	X	Х
DB 75	250	61	127	28(410)	×	Х

White colour

DB 84	240	56	143	28	Х	Х
DB 85	480	70	175	28	Х	X

Translucent

Transluce	Translucent									
DB 95	480	70	175	28	×	Х				

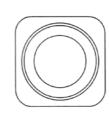
*CT - continuous thread / **CR - child-resistant

Triveni Black Lining (induction seal)

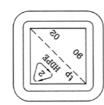
screw system



specifications







Ref.#	ml	▶mm◀	a u u u u u u u u u u u u u u u u u u u	mm mm	CT* Ref.#	CR** Ref.#
DB 169	40	38	60	33	×	x
DB 166	45	30	64	28	×	X
DB 161	60	40	75	33	×	×
DB 189	85	44	82	33	×	X
DB 170	90	43	67	38	×	×
DB 167	100	48	78	38	×	X
DB 168	150	56	94	38	×	×
DB 173	2500	152	174	89	×	_

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

Product features

- More than 10 standard SKU's
- Material: container HDPE, closure PP
- Available as child-resistant
- Containers are available with thicker wall/different weight variantions (low, high)

Technical features

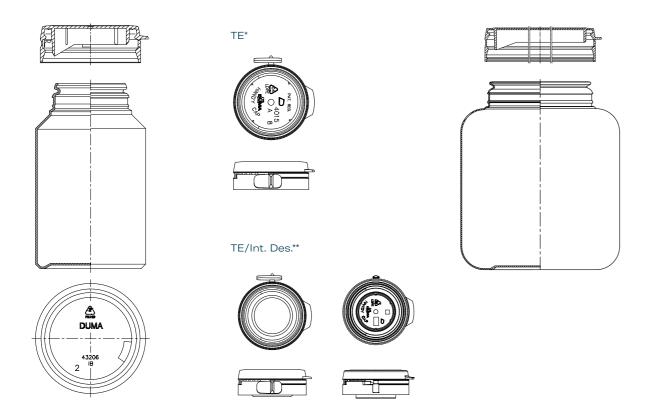
- Containers produced by extrusion blow molding
- Closures produced by injection molding
- Manufactured under clean-room conditions
- FDA registered, DMF type III,
 DMF no. 11711 for containers,
 DMF no. 22377 for CT closures

Duma® Standard

snap-on system



specifications



Duma® Standard

					Label	TE*	TE/Int. Des.**	TE/Int. Des.**
	ml	▶mm◀		mm mm	mm			
Ref.#			<u>▼</u>	1 1	⊥	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

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

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



^{**} TE/Int. Des. - integrated desiccant. Can be delivered with two different tamper-evident features

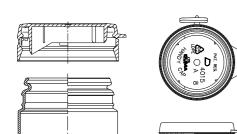
Duma® Special

snap-on system

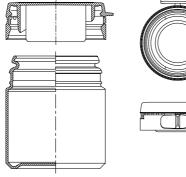


specifications

TE*



TE/Int. Des.**







Duma® Special

					Label	TE*	TE/Int. Des.**	TE/Int. Des.**
	ml	▶mm	E T	d ▶ mm	™ mm			
Ref.#			▼		▼	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

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

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



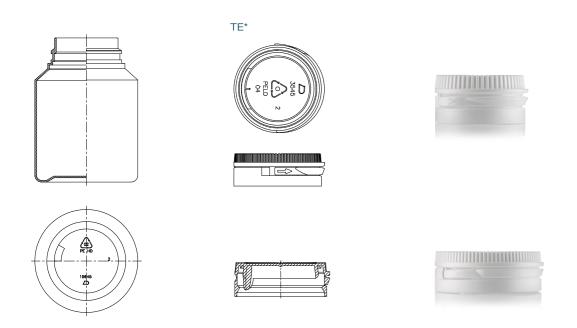
^{**} TE/Int. Des. - integrated desiccant. Can be delivered with two different tamper-evident features

Dudek™

snap-on system



specifications



Dudek™

Ref.#	ml	▶ mm ◀	a a a a a a a a a a a a a a a a a a a	mm mm	Label	TE* 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

Product features

- 7 Dudek™ sizes ranging from 15–150 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

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



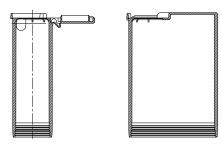




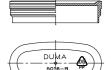
specifications

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Duma® Pocket





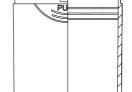












Duma® Pocket CR Box





Ref.#

- 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
- Child-resistant feature
- New ergonomic design easy to dispense
- Integrated cap with desiccant solutions
- Child-resistant feature
- Press and hold on box part by one hand and remove top by another hand
- Choose the color you like

Ref.#

Duma® Pocket

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

TE - tamper-evident with break-away ring

Duma® Pocket CR 100

10018C 100 70 x 31 78 - 125 1001	8D
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TE - tamper-evident / CR - child-resistant

Duma® Pocket CR Box

04546	SC .	40	49,5 x 24	56	-	36	4546L

CR - child-resistant

Gerresheimer worldwide



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