

GERRESHEIMER



Pharmaceutical Primary Packaging Made of Glass

Pharmazeutische Primärverpackungen aus Glas

Les emballages pharmaceutiques primaires en verre

Tubular and Moulded Glass



Primary Packaging Glass



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 our 11,000 employees manufacture our products in local markets, close to our customers. With over 40 plants in Europe, North America, South America and Asia, we generate revenues of

approximately EUR 1.3 billion. Our comprehensive product portfolio includes pharmaceutical packaging and products for the safe, simple administration of medicines: Insulin pens, inhalers, prefillable 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.

Your specialist for pharmaceutical primary packaging made of glass Ihr Spezialist für pharmazeutische Primärverpackungen aus Glas *Votre spécialiste des emballages pharmaceutiques primaires en verre*

Glass is the preferred primary packaging material for many pharmaceuticals. As a leading global manufacturer of pharma glass, Gerresheimer offers a comprehensive portfolio of products in superior quality. This catalog presents our range of tubular and moulded glass products and services.

Glas ist für viele Arzneimittel das bevorzugte Primärverpackungsmaterial. Als einer der global führenden Hersteller von Glas für die Pharmazie bietet Gerresheimer Ihnen ein breites Programm von herausragender Qualität. In diesem Katalog präsentieren wir unser Leistungsspektrum aus Röhren- und Behälterglas.

Le verre est le matériau d'emballage primaire privilégié pour de nombreux médicaments. En tant que fabricant leader à l'échelle mondiale de verre pharmaceutique, Gerresheimer vous propose une gamme étendue et d'excellente qualité. Nous vous présentons dans ce catalogue notre palette de produits de verre tubulaire et moulé.



Tailor-made solutions based on tubular glass

As a vertically integrated manufacturer we also produce glass tubing as an intermediate product. The flint or amber borosilicate glass tubing (type I) is then used to produce the high-quality vials, ampoules and cartridges in our comprehensive range of primary packaging for pharmaceuticals made of tubular glass.

Maßgeschneiderte Lösungen aus Röhrenglas

Als vertikal integrierter Hersteller produzieren wir selbst Glasröhren als Vorprodukte. Aus klaren und braunen Borosilikatglasröhren des Typs I fertigen wir im Anschluss hochwertige Fläschchen, Ampullen und Karpulen. Damit bieten wir ein umfassendes Primärverpackungsprogramm aus Röhrenglas für die Pharmazie.

Solutions sur mesure en verre tubulaire

En tant que producteur intégré verticalement, nous produisons nous-même des tubes de verre qui sont des pré-produits. En partant de tubes en verre borosilicate transparent et brun de type I, nous fabriquons ensuite des flacons, ampoules et carpules de qualité. Nous vendons ainsi une gamme exhaustive de conditionnements primaires en verre tubulaire à l'industrie pharmaceutique.



Perfectly matched moulded glass packaging

We produce all kinds of moulded glass containers suitable for pharmaceuticals, including borosilicate glass containers of the highest hydrolytic resistance. This enables us to offer a complete range of pharmaceutical packaging in flint, amber, colored and opal glass.

Optimal abgestimmte Behälterglasverpackung

Wir produzieren alle Arten von Behälterglasverpackungen für die Pharmazie. Dazu zählen auch Borosilikatglasbehälter von höchster hydrolytischer Resistenz. Auf dieser Basis bieten wir ein vollständiges Programm von Pharmaverpackungen aus Klar- und Braunglas sowie Farb- und Opalglas an.

Des contenants en verre parfaitement adaptés

Nous produisons toutes sortes de contenants en verre pour la pharmacie. En font partie également des contenants en verre borosilicate d'une résistance hydrolytique extrême. Partant de là, nous vendons une gamme complète d'emballages pharmaceutiques en verre transparent et brun, de même qu'en verre coloré et translucide.

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Tubular Glass

Pharmaceutical packaging made of tubular glass

Pharmaverpackungen aus Röhrenglas

Emballages pharmaceutiques en verre tubulaire



Tailor-made solutions for parenteral drugs

Gerresheimer is a vertically integrated manufacturer, so it specializes in the production of high-quality glass tubing as an intermediate product and then uses the tubes to manufacture cartridges, ampoules and vials as primary packaging for the pharma and biotech industries.

- Many years of expertise in both tubing and converting
- Borosilicate glass of hydrolytic class I
- Risk mitigation as a result of many production facilities around the world

Quality standards

Our plants consistently apply current good manufacturing practices (cGMP) and are certified as compliant with the DIN EN ISO 9001 and 15378 standards. Our products conform to Pharm. Eur., USP and JP and fulfill the requirements for glass as a primary packaging material.

- State-of-the-art technologies
- Continuous process improvements
- Clean room production
- Drug master files to simplify product registrations

Maßgeschneiderte Lösungen für parentale Arzneimittel

Als vertikal integrierter Hersteller ist Gerresheimer zum einen auf die Produktion von qualitativ hochwertigen Glasröhren spezialisiert. Zum anderen werden daraus Karpulen, Ampullen und Fläschchen als Primärverpackungsbehälter für die Pharma- und Biotech-Industrie produziert.

- Langjährige Erfahrung bei Tubing und Converting
- Borosilikatglas der hydrolytischen Klasse I
- Risikobegrenzung durch zahlreiche Produktionsstätten weltweit

Qualitätsstandards

Unsere Werke wenden die Good Manufacturing Practice (cGMP) konsequent an und sind nach DIN EN ISO 9001 und 15378 zertifiziert. Unsere Produkte entsprechen den Richtlinien der einschlägigen Pharmacopöen (Pharm. Eur., USP und JP) und erfüllen alle Anforderungen an Primärverpackungen aus Glas.

- Modernste Technologien
- Kontinuierliche Prozessverbesserungen
- Reinraumproduktion
- Drug Master Files zur Erleichterung von Produktregistrierungen

Solutions sur mesure pour médicaments parentéraux

En tant que producteur intégré verticalement, Gerresheimer est d'une part spécialisé dans la fabrication de tubes de verre de qualité. Ceux-ci servent d'autre part à fabriquer des carpules, ampoules et flacons servant de contenants primaires pour l'industrie pharmaceutique et biotechnologique.

- Longue expérience du tubulaire et de la transformation
- Verre borosilicate de classe hydrolytique I
- Limitation des risques grâce à de nombreux sites de production dans le monde entier

Normes de qualité

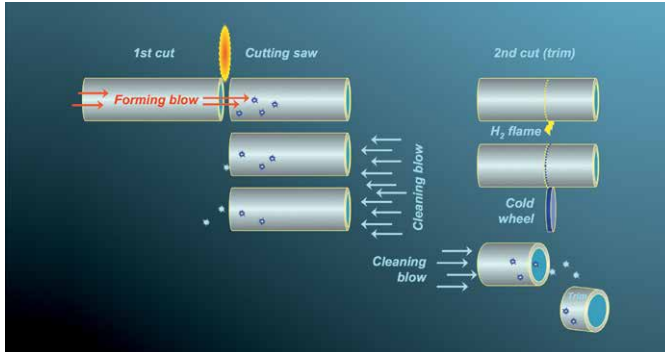
Nos usines appliquent scrupuleusement les bonnes pratiques de fabrication (Good Manufacturing Practice (cGMP)) et sont certifiées DIN EN ISO 9001 et 15378. Nos produits satisfont aux directives des pharmacopées concernées (Pharm. Eur., USP et JP) et répondent aux exigences imposées au verre destiné aux emballages primaires.

- Technologies ultramodernes
- Amélioration continue des process
- Production en salles blanches
- Fiches Maîtresses de Médicament (Drug Master Files) pour l'enregistrement des produits

Tubular glass technologies and innovations

Röhrenglastechnologien und -innovationen

Technologies et innovations pour le verre tubulaire



Gx® tekION™ Particle Reduction System

- The electrodynamics of glass particles generated during the tube cutting process can potentially result in a positive charge, which means that the particles cling to the glass tube wall
- Standard purge air does little or nothing to change the elementary charge value of the particles as it relies on flow rate and force to dislodge them
- Gx® tekION™ works by blowing positively and negatively charged air molecules inside the tube to eliminate the charge imbalance on the tube surface
- The glass tube is also acted upon by ultrasonic vibration
- Loose particles are reduced by 99%

Gx® tekION™ System zur Partikelentfernung

- Die durch den Röhrenschneidprozess bedingte Elektrodynamik kann zu einer positiven Aufladung von Glaspartikeln und damit einem Anhaften der Partikel an der Innenwand der Glasröhre führen
- Normale Ausblasluft kann den elementaren Aufladungswert des Glaspartikels nicht oder kaum verändern, da sie auf Luftdurchflussrate und Impuls zur Lösung der Partikel setzt
- Gx® tekION™ arbeitet auf der Basis von positiv und negativ aufgeladenen Luftmolekülen in der Glasröhre und beseitigt ungleiche Aufladungen auf der Röhreninnenoberfläche
- Ultraschallschwingung der Glasröhre unterstützt den Prozess
- Lose Partikel werden um 99% reduziert

Système d'élimination des particules

Gx® tekION™

- L'électrodynamique des particules de verre liée au procédé de coupe des tubes peut provoquer une charge positive et donc une adhérence des particules à la paroi des tubes de verre.
- Une soufflerie d'air ordinaire ne change rien ou pas grand-chose au taux de charge des particules de verre car il faut un fort débit d'air et de la force pour dissoudre les particules.
- Gx® tekION™ fonctionne sur la base de molécules à charge positive et négative dans le tube et élimine les charges irrégulières à la surface du tube.
- Un oscillateur à ultrasons agissant sur les tubes assiste ce processus.
- Les particules libres sont réduites de 99 %.



Gx® G3 Vial Inspection

- Visual inspection of all areas of the vial: finish/neck, shoulder, body, hyper-bottom
- Combination of 5 high resolution matrix and linescan cameras
- Proprietary lighting system
- Custom software capable of defect recognition and classification
- Bright and dark field images acquired at the same time help to characterize defects
- Precision handling system for repeatability

Gx® G3 Fläschcheninspektion

- Visuelle Inspektion aller Bereiche des Fläschchens: Mündung/Hals, Schulter, Körper, Boden
- Kombination aus fünf hochauflösenden Matrix- und Zeilenkameras
- Eigenentwickeltes Beleuchtungssystem
- Spezifisch entwickelte Software zur Fehlererkennung und -klassifizierung
- Simultane Bilder vor hellem und dunklem Hintergrund helfen bei der Fehlerbestimmung
- Hochpräzises Handling-System sichert Wiederholbarkeit

Inspection de flacons Gx® G3

- Inspection visuelle de toutes les parties du flacon : embouchure/col, épaulement, corps, fond.
- Combinaison de cinq caméras matricielles et linéaires à haute définition.
- Système d'éclairage spécifique
- Logiciel spécifique au client pour détecter et classer les défauts.
- Des images simultanées des zones claires et sombres aident à déterminer les défauts.
- Système de manipulation de haute précision pour reproductibilité.

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Gx® Tubing



Gx® Glass Tubing
Gx® Glasröhren
Gx® Tubes en verre

1

2

3

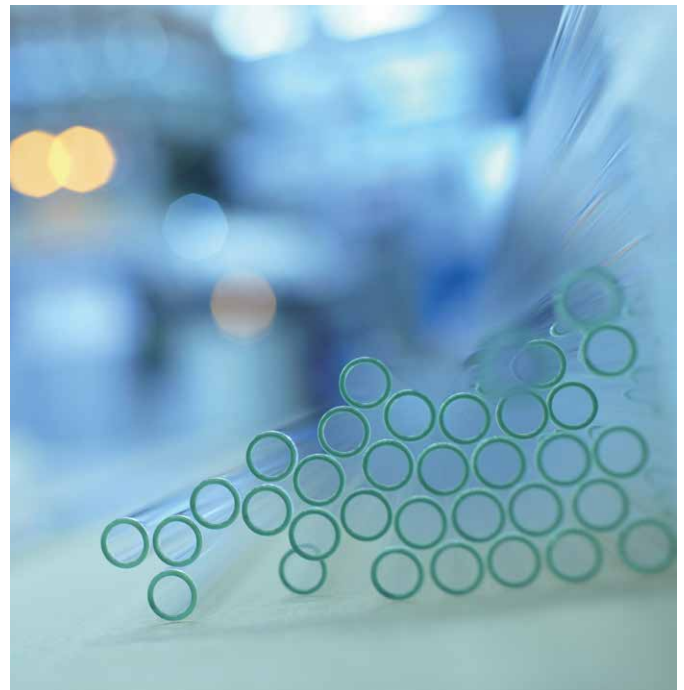
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High-quality Gx® Glass Tubing for pharmaceutical packaging

In its two tubing production sites in Pisa (Italy) and Vineland, NJ (USA), Gerresheimer produces clear and amber borosilicate glass tubing of best hydrolytic quality. To meet our customers' growing demand for highest quality performance we use state-of-the-art furnace technologies guaranteeing a homogeneous melting process which is checked by modern control systems and regular chemical analysis.

- Two tubing production sites
- 6 furnaces
- Clear and amber glass tubing
- Glass type I (compliant to Pharm. Eur. / USP / JP)
- Expansion coefficient 33 and 51
- Diameters: 4 – 150 mm
- Wall weights: 0.18 – 8.00 mm



Fully controlled and automated production process



From raw material preparation up to the final packaging the Gerresheimer glass tubing production process is seamlessly integrated. An innovative process control monitors the entire production flow through built-in feedback loops and dedicated in-line and in-process inspections.

- Raw material/laboratory
- Melting/PLC
- Forming (Vello/Danner)
- In-process inspection
- Traceability



In-line quality inspection

1. Cosmetic inspection system

- 100% cosmetic inspection on all lines with automated reject
- Camera and laser inspection
- Circular coverage: 100%
- Defect types: airlines, knots & stones

2. Dimensional inspection for outer and inner diameter

- 100% inspection on all lines with automated reject
- Laser inspection for OD
- Camera inspection for ID

3. Dimensional inspection for wall thickness

- 100% inspection with automated reject
- One to four axes thickness measurement
- Wall-siding measurement
- More than 40 points measured per tube

4. Statistical process control

- IPC by shift quality inspectors
- Final acceptance by QC
- Cp/Cpk monitoring



Chemical and physical characteristics of Gx[®] Tubing

Glass Composition (approximate oxide weight [%])

Oxide Component	Symbol	Gx [®] 51-V	Gx [®] 51-D (*)	Gx [®] 51-L (Amber)	Gx [®] 33
Silicon Dioxide	SiO ₂	72.0	73.0	69.0	80.0
Boron Oxide	B ₂ O ₃	11.5	11.2	10.0	12.7
Aluminium Oxide	Al ₂ O ₃	6.8	6.8	6.0	2.6
Calcium & Magnesium Oxide	CaO + MgO	0.7	1.0	1.0	< 0.1
Sodium Oxide	Na ₂ O	6.5	6.8	6.0	4.3
Potassium Oxide	K ₂ O	2.4	1.2	2.0	0.1
Iron Oxide	Fe ₂ O ₃	< 600 ppm (**)	< 400 ppm (**)	1.0	< 500 ppm (**)
Barium Oxide	BaO	< 400 ppm (**)	< 400 ppm (**)	1.5	< 400 ppm (**)
Titanium Dioxide	TiO ₂	< 400 ppm (**)	< 300 ppm (**)	3.0	< 400 ppm (**)

(*) Formulated for closed ampoules / (**) Not introduced in the batch composition

Chemical Resistance Classifications

Resistance Class	Specification	Gx [®] 51-V	Gx [®] 51-D	Gx [®] 51-L	Gx [®] 33
Hydrolytic Resistance (Glass Grain)	EP (3.2.1B)/USP <660>	Type I	Type I	Type I	Type I
Hydrolytic Resistance (Glass Grain)	ISO 720	HGA1	HGA1	HGA1	HGA1
Soluble Alkali Test	JP 7.01	Complies	Complies	Complies	Complies
Acid Resistance Class	DIN 12116	Class S1	Class S1	Class S1	Class S1
Alkali Resistance Class	ISO 695	Class A2	Class A2	Class A2	Class A2
ASTM Laboratory Glass Class	ASTM E 438	Class B	–	–	Class A

Physical Properties

Name	Unit	Gx [®] 51-V	Gx [®] 51-D	Gx [®] 51-L	Gx [®] 33
Average Linear T.E.C.	10 ⁻⁷ K ⁻¹	54	51	53	32.5
Density	g cm ⁻³	2.33	2.34	2.37	2.23
Relative Refractive Index	(number) *	1.49	1.49	1.50	1.47

* λ at 587,6nm

Viscosity Curve – Characteristic Temperatures

Name	Viscosity [Poise]	Gx [®] 51-V	Gx [®] 51-D	Gx [®] 51-L	Gx [®] 33
Working Point	10 ^{4,0}	1130 °C	1155 °C	1140 °C	1240 °C
Softening Point	10 ^{7,6}	785 °C	777 °C	765 °C	825 °C
Annealing Point	10 ^{13,0}	570 °C	555 °C	550 °C	565 °C
Strain Point	10 ^{14,5}	525 °C	515 °C	515 °C	515 °C

Heavy Metals / Arsenic / Antimony

Heavy Metals

Contents of Pb, Cd, Hg, Cr^{VI} is below the 100 ppm limit value stated by the US Toxics in Packaging Clearing House (TPCH) and European Parliament and Council Directive Article 11 of 94/62/ EC of 10. Dec. 1994 on packaging and packaging waste with updates 2001/171/EC and 2006/340/EC.

Arsenic and Antimony

Gerresheimer does not introduce any Arsenic nor Antimony in the batch composition of its glasses. Tests performed as per U.S. and European Pharmacopoeia prescriptions on containers made from Gerresheimer clear glass tubes give the following results:
As = Not detectable; Sb = Not detectable

Gx® Cartridges for drug delivery systems (dental and pen)



Gerresheimer is an approved supplier of cartridges for various pharmaceutical applications. Our Gx® Cartridges range in size from 1.5 to 10 ml and are available in flint and amber (glass type I). To ensure that customer quality requirements are met, all of our Gx® Cartridge lines are equipped with visual inspection systems for 100% dimensional control. Our most modern lines also use visual inspection systems to check for cosmetic defects and line-scan cameras to control the glazed end. Final packaging is performed under controlled environmental conditions.

- Pen cartridges
- Dental cartridges
- Type I glass (compliant with Pharm. Eur./USP/JP)
- Sizes from 1.5 to 3.0 ml, larger sizes up to 10.0 ml on request
- Visual inspection systems for 100% dimensional control
- Designs according to DIN ISO 11040-1 and 13926-1; customized formats on request
- Customized ceramic printing with heavy metal-free inks
- Packaging options: PP box, tray, shrink wrap
- Suitable for standard filling and packaging equipment
- Drug Master File Type III

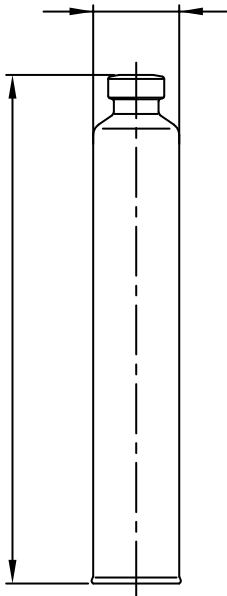
Gx® Cartridges for drug delivery systems (dental and pen)



Gx® Cartridges
Gx® Karpulen
Gx® Carpules

- 1
- 2
- 3
- 4
- 5

SPECIFICATIONS



1.5	8.65	6.85	56.95
1.8	8.65	6.85	62.00
3.0	11.60	9.70	62.30
3.0	11.60	9.65	62.30

Other dimensions on request

Gx® Ampoules as primary packaging for numerous drugs



Our customers around the world benefit from our many years of expertise in the field of pharmaceutical ampoule manufacturing as their highly competent supplier and partner. Even our standard range of Gx® Ampoules includes a wide variety of high-quality products. Several options complement this range, enabling us to match the type and properties of our Gx® Ampoules to your specific requirements in addition to ISO standard compliance.

Gerresheimer is strongly committed to innovative technologies and regularly collaborates with customers to continuously develop and optimize them along the entire process chain. The quality of our Gx® Ampoules is monitored at every stage of the production process by state-of-the-art in-line camera systems – right through to a complete inspection of the printing. The excellent dimensional stability of our Gx® Ampoules enables high-speed filling and sealing operations.



- Type I glass (compliant with Pharm. Eur./USP/JP)
- Flint and amber glass ampoules
- Filling capacities from 1 to 30 ml
- Straight stem, funnel type and closed ampoules (ISO types B, C and D as well as customized special shapes)
- Various break systems such as OPC (One Point Cut), CBR (Color Break Ring) and SCR (Score Ring) with optimized opening forces
- Up to three colored coded identification rings or customized ceramic printing with heavy metal-free inks
- Optimized designs for lyophilization
- Production and packaging under cGMP conditions
- Drug Master File Type III

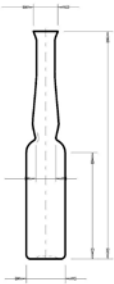
Gx® Ampoules
as primary packaging for numerous drugs



Gx® Ampoules Type B/C/D
Gx® Ampullen Typ B/C/D
Gx® Ampoules Type B/C/D

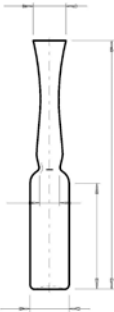
SPECIFICATIONS

Type B



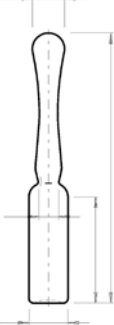
1	60	21	10.75	6.5	8
2	72	33	10.75	6.5	8
3	75	35	12.75	6.5	8
5	83	41	14.75	7	9
10	102	55	17.75	7.5	9.5
20	113	65	22.5	8.5	11
25	128	80	22.5	8.5	11
30	143	95	22.5	8.5	11

Type C



1	67	21	10.75	6.5	9
2	79	33	10.75	6.5	9
3	82	35	12.75	6.5	10.7
5	90	41	14.75	7	12.2
10	109	55	17.75	7.5	13
20	120	65	22.5	8.5	14
25	135	80	22.5	8.5	14
30	150	95	22.5	8.5	14

Type D



1	70	21	10.75	9	10
2	83	33	10.75	9	10
3	89	35	12.75	10.7	10.5
5	95	41	14.75	12.2	12
10	112	55	17.75	13	13.5
20	126	65	22.5	14	13.5
25	141	80	22.5	14	13.5
30	156	95	22.5	14	13.5

Applies to all products on this page: Other dimensions on request

Gx® Vials for pharmaceuticals and diagnostics



Our comprehensive range of Gx® Vials comprises sizes from 0.6 to 50 ml in different designs, with or without blowback (European and American version) according to industry standards or to your individual specifications. State-of-the-art production process and in-line camera inspection systems ensure high performance in filling lines and lyophilization processes. Production and packaging are performed under cGMP conditions.

- Type I, II or III glass (compliant with Pharm. Eur./USP/JP/FEUM)
- Homogeneous walls for excellent cosmetic appearance
- Tight tolerances and low dimensional variability
- Improved quality in labeling processes (less wrinkles on label)
- High thermal shock resistance
- Bottom concavity control for lyophilization vials
- Drug Master File Type III



Pharmaceutical vials

- Injection vials
- Lyophilization vials
- Tablet vials
- Large OD vials

Diagnostic vials

- Screw thread vials
- Screw thread tubes
- Chromatography vials

Special vials

- ADD-Vantage® vials
- Two-compartment vials
- Sampler vials
- Onion skin vials

Finishes

- Without blowback
- With blowback
 - European version
 - American version

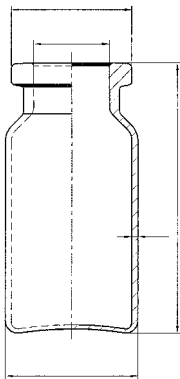
Gx® Vials
for pharmaceuticals and diagnostics



Gx® Vials (ISO, US/CAN)
Gx® Fläschchen (ISO, US/CAN)
Gx® Flacons (ISO, US/CAN)

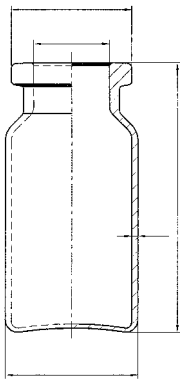
SPECIFICATIONS

ISO vials



ref	ml	mm	mm	mm	mm	mm
2R	4	16	13	7	35	1.0
4R	6	16	13	7	45	1.0
6R	10	22	20	12.6	40	1.0
8R	11.5	22	20	12.6	45	1.0
10R	13.5	24	20	12.6	45	1.0
15R	19	24	20	12.6	60	1.0
20R	26	30	20	12.6	55	1.2
25R	32.5	30	20	12.6	65	1.2
30R	37.5	30	20	12.6	75	1.2
50R	62.23	42.5	19.9	12.7	65	1.5

Most Common sizes for US/CAN market



2	3.05	14.75	13.15	7.05	32	1.0
3	4.68	16.70	13.15	7.05	38	1.1
5	7.33	20.75	13.15	7.05	38	1.1
6	10.13	21.75	19.94	12.70	40	1.1
10	15.19	23.75	19.94	12.70	50	1.2
15	22.74	26.75	19.94	12.70	57	1.2
20	28.56	28.75	19.94	12.70	62	1.2
25	28.42	26.75	19.94	12.70	73	1.45
30	38.82	29.75	19.94	12.70	76	1.2
50	62.23	42.50	19.9	12.70	65	1.5

Applies to all products on this page: Other dimensions on request

New Gx MultiShell® plastic parenteral vials

Improved barrier properties for sensitive drugs



Gx MultiShell® vials have a unique triple-layer structure consisting of a layer of polyamide sandwiched between two COP (cyclic olefin polymer) layers. They have unique barrier properties which enhance the drug's stability over its shelf life.

All materials used fulfill the stringent biocompatibility and pharmacopoeia requirements for pharmaceutical plastic packaging materials Pharm. Eur./USP/JP.

The absence of metal ions in the Gx MultiShell® vials and their inertness against acidic or alkaline conditions make them the ideal choice for heavy metal-sensitive drugs or parenterals with a high pH-value.

The multilayer design offers additional integrity assurance, even under force impact. The combined crack resistance and integrity performance are a unique packaging safety feature for manufacturers of toxic or high potency drug solutions.

Gerresheimer's vials are available in the sizes of 2, 5, 10, 15, 50 and 100 ml and manufactured under clean room conditions. A multifunctional automated packaging line makes it possible to supply vials both as bulk products and in ready-to-use format.

The Gx MultiShell® vials are manufactured at our plant in Bolesławiec, Poland. The Bolesławiec facility is certified as compliant with ISO 9001:2008, ISO 14001:2004, ISO 15378:2007. It also satisfies the special requirements for the application of ISO 9001:2000 and is certified as compliant with the ISO 22716 GMP (Good Manufacturing Practice) standard. This site has registered a DMF with the FDA (USA).

Product characteristics

- Unique barrier properties
- Superior break resistance
- Inert against high and low pH
- No metal ions
- Low absorption

Product offering

- Gx MultiShell® standard
- Gx MultiShell® ready-to-sterilize (includes certified Bioburden, Endotoxin and particle level)
- Gx MultiShell® ready-to-use (includes validated gamma sterilization)

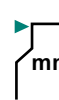
New Gx MultiShell® plastic parenteral vials
Improved barrier properties for sensitive drugs



Gx MultiShell® Vials
Gx MultiShell® Fläschchen
Gx MultiShell® Flacons

- 1
- 2
- 3
- 4
- 5

SPECIFICATIONS

									
2R	EN ISO 8362-1	2	3.5	16	35	3.6	13	7	2.7
6R	EN ISO 8362-1	5	9.1	22	40	3.6	20	12.6	4.9
10R	EN ISO 8362-1	10	12.5	24	45	3.6	20	12.6	6.1
15R	EN ISO 8362-1	15	17	24	60	3.6	20	12.6	8.2
50H	EN ISO 8362-4	50	67	42.5	73	3.8	20	12.6	16
100H	EN ISO 8362-4	100	132.2	51.6	94.5	3.8	20	12.6	26.5

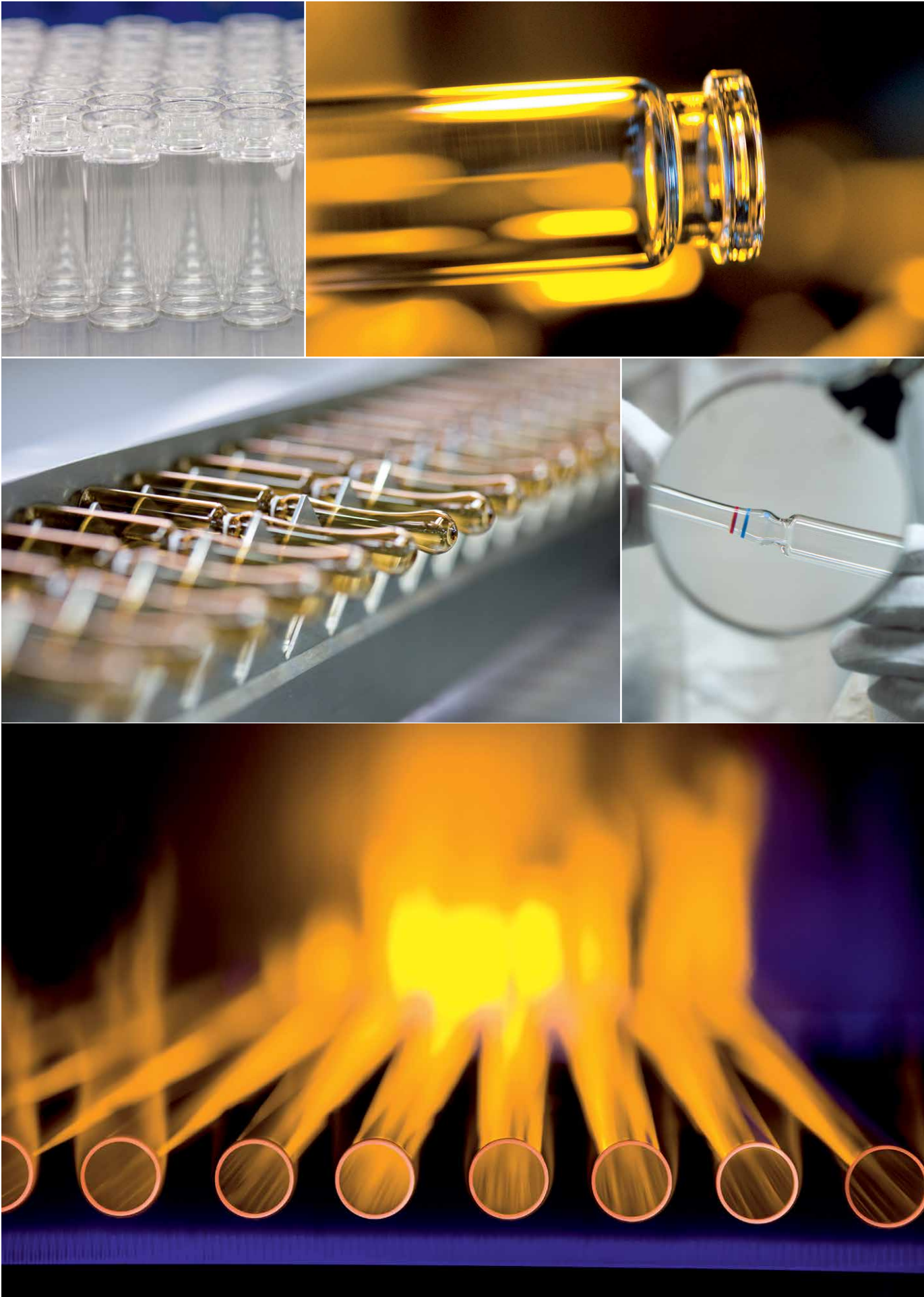
New Gx MultiShell® plastic parenteral vials

Improved barrier properties for sensitive drugs



PRODUCT PACKAGING AND FINISH DESCRIPTION

	Specification	MultiShell® Standard	MultiShell® RTS	MultiShell® RTU
Production environment	ISO 7	●	●	●
Packaging processing	Fully automated	●	●	●
Packaging environment	ISO 7	●	●	●
Packaging materials in direct contact with vials	Produced in ISO 7	●	●	●
Dimensions	Accord. to standard specification	●	●	●
Defects	Accord. to standard specification	●	●	●
Cleanliness	Accord. to standard specification	●	●	●
Endotoxin	Certified per batch; limit: 0.06 EU/ml		●	
Particles	Certified per batch		●	●
Bioburden	Certified per batch; limit: 10 CFU/ml		●	●
Gamma radiation	Validated sterilisation dose			●
Sterilisation	Certified per batch / parametric release			●
Endotoxin test post sterilisation	Certified per batch			●



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Moulded Glass

Pharmaceutical packaging made of moulded glass

EN

A top-quality multi-faceted range for the markets of the world



Moulded glass packaging from the Gerresheimer Group makes up an internationally-leading, comprehensive range to the highest quality standards. In a wide variety of shapes and specifications it is tailored in detail to the requirement of your target markets.

For every need the perfectly matched moulded-glass packaging

Our product lines cover all the pharmaceutically relevant glass categories. In addition to borosilicate glass of type I, soda-silica glass of types II and III is used. We are therefore able to supply you with the perfectly matched glass packaging for every type and form of pharmaceuticals. With our choice of glass types we offer optimum conditions even for the most sensitive medicines – and at the same time the best packaging solution from an economic viewpoint.

You will find bottles and jars in a wide variety of variants and with numerous options to cater for specific needs. In addition to amber and clear glass, for example, we also produce coloured pharma glass and opaque opal glass. The range includes all the common mouth shapes and caters for contents from 2 to 4,000 ml. On request we can print or acid-etch the glass. In addition, we can develop customised glass shapes for you.

Tailor-made delivery packaging

You can also choose a delivery packaging form suited to your filling technology. We offer safe (shrink) packs, tray packs and industrial (service) packaging but also fulfil your individual packaging wishes.

Production with comprehensive quality assurance

We manufacture in Europe, America and Asia. Very high, internationally uniform quality standards apply for our operating establishments. Our packaging is produced on the basis of the latest defect evaluation lists and in accordance with the common pharmacopoeia requirements. Currently valid certification of our plants (DIN EN ISO 9001:2000 / 15378:2007) is a matter of course.

From development through to production and on to the delivery packaging we use state-of-the-art processes and control technologies. With the help of our clean-room systems we can ensure the best possible values for our products in terms of freedom from germs and particles.

Everything from a single source

We naturally supply you with complete problem solutions from a single source. This includes professional system advice on all aspects of your pharma packaging. We also help you with the selection of suitable suppliers of closures or other design components. From the first request for samples right through to delivery, our teams are available to assist you with professional customised advice: everywhere in the world.

Pharmaverpackungen aus Behälterglas

DE

Qualität und Vielfalt für die Märkte der Welt



Behälterglasverpackungen der Gerresheimer Gruppe bilden ein umfassendes, international führendes Programm auf höchstem Qualitätsniveau. In vielfältigen Formen und Spezifikationen ist es detailliert auf die Anforderungen Ihrer Zielmärkte abgestimmt.

Für jeden Bedarf die optimal abgestimmte Behälterglas-Verpackung

Unsere Sortimente schließen alle pharmazeutisch relevanten Glasklassen ein. Neben Borosilicatglas des Typs I kommen Natronkalk-Silicatgläser der Typen II und III zum Einsatz. Damit sind wir in der Lage, Ihnen für jede Art und Form von Arzneimitteln die optimal abgestimmte Glasverpackung zu liefern. Mit unserer Auswahl an Glasarten bieten wir optimale Voraussetzungen selbst für sensible Medikamente – gleichzeitig die auch unter wirtschaftlichen Gesichtspunkten jeweils sinnvollste Verpackungslösung.

Sie finden Flaschen und Gläser in verschiedensten bedarfsgerechten Varianten und mit zahlreichen Optionen. So produzieren wir neben Braun- und Klarglas auch farbige Pharmagläser sowie blickdichtes Opalglas. Wir haben alle gängigen Mündungsformen und Volumina von 2 bis 4.000 ml im Programm. Auf Wunsch bedrucken oder mattieren wir das Glas. Darüber hinaus entwickeln wir auch kundenspezifische Glasbehältnisse.

Lieferverpackungen nach Maß

Sie haben außerdem die Wahl der für Ihre Abfülltechnik geeigneten Lieferverpackung. Ob Safe-Pack, Tray-Pack, Industrieverpackung oder Ihr spezifischer Verpackungswunsch: wir bieten Ihnen verschiedenste Alternativen.

Produktion mit umfassendem Qualitätsanspruch

Wir produzieren in Europa, in Amerika und in Asien. Für unsere Betriebsstätten gelten international einheitliche, sehr hohe Qualitätsstandards. Unsere Verpackungen entstehen auf Basis der jeweils jüngsten Fehlerbewertungslisten und nach den Richtlinien der einschlägigen Pharmakopöen. Aktuell gültige Zertifizierungen unserer Standorte (DIN EN ISO 9001:2000 / 15378:2007) verstehen sich dabei von selbst.

Von der Entwicklung über die Herstellung bis zur Lieferverpackung setzen wir modernste Verfahrens- und Kontrolltechnologien ein. Mit Hilfe unserer Reinraumsysteme können wir für unsere Erzeugnisse auch hinsichtlich der Keim- und Partikelarmut beste Werte sicherstellen.

Alles aus einer Hand

Natürlich liefern wir Ihnen komplette Problemlösungen aus einer Hand. Dazu gehört kompetente Systemberatung rund um Ihre Pharmaverpackung. Wir helfen Ihnen auch bei der Auswahl geeigneter Lieferanten, wenn es um Verschlüsse oder andere Ausstattungskomponenten geht. Von der ersten Anfrage über die Bemusterung bis zur Lieferung stehen Ihnen unsere Teams mit maßgeschneiderten Beratungs- und Serviceleistungen kompetent zur Seite: überall auf der Welt.

Emballages pharmaceutiques en verres de récipients

FR

diversité et qualité pour tous les marchés du monde



Les récipients en verre développés par le groupe Gerresheimer entrent dans le cadre d'un programme complet de qualité, leader sur les marchés internationaux. Dans une grande diversité de formes et de spécifications il est parfaitement adapté aux exigences de tous vos marchés cibles.

À chaque besoin son récipient en verre parfaitement adapté

Notre palette de produits se compose de toutes les catégories de verre à usage pharmaceutique : nous utilisons du verre borosilicaté de type I, mais aussi du verre sodocalcique des types II et III. Nos emballages en verre sont donc parfaitement adaptés à tous les types de médicaments. Dans notre vaste sélection de verres, vous trouverez à la fois des solutions optimales pour le conditionnement de vos médicaments les plus sensibles, et des solutions tenant compte de toutes les exigences de rentabilité.

Nous vous proposons des flacons et des verres dans diverses variantes selon vos besoins et avec de nombreuses options. Nous fabriquons du verre transparent et du verre brun, aussi bien que des verres colorés à usage pharmaceutique et des verres opalisés opaques. Notre programme propose toutes les formes d'embouchure et tous les volumes de remplissage de 2 à 4000 ml. Sur demande, nous pouvons appliquer des inscriptions sur le verre ou procéder à son matage. Par ailleurs, nous pouvons développer des formes de verre sur mesure, adaptées à vos besoins.

Emballages sur mesure

Gerresheimer vous donne également la possibilité de choisir les emballages les mieux adaptés à votre technique de remplissage. Emballage barquette, pack houssé, emballage industriel ou vos demandes d'emballages personnalisés, à vous de décider.

Production et exigence de qualité totale

Le groupe Gerresheimer a des sites de production en Europe, en Amérique et en Asie. Toutes nos usines sont soumises à des normes internationales de qualité très strictes, et nos emballages sont fabriqués conformément aux listes de correction les plus récentes et aux directives des pharmacopées applicables. Tous nos sites ont reçu la certification DIN EN ISO 9001:2000 / 15378:2007).

Depuis le développement jusqu'à l'emballage, en passant par la production, nous employons des procédés et techniques de contrôle les plus modernes. Nos systèmes de salles blanches nous permettent de garantir une atmosphère pauvre en particules et en germes et d'assurer les meilleurs résultats pour nos produits.

Bien plus qu'un fabricant

Gerresheimer vous propose des solutions complètes, comprenant également notre assistance système pour tous vos emballages pharmaceutiques. Nous vous assistons également dans la sélection de fournisseurs de fermetures et d'autres composants d'habillage de vos contenants. Nos équipes mettent à votre disposition leurs compétences, leurs services et leurs conseils entièrement personnalisés depuis vos premières demandes jusqu'à la livraison en passant par la phase de contrôle : partout dans le monde.

Legend

Legende – légende



- reference
- Referenz
- référence



- cross-section
- Querschnitt
- coupe trans-
versale



- declared capacity
- Inhalt füllvoll
- contenance utile



- brimful capacity
- Inhalt randvoll
- contenance
ras-bord



- weight
- Gewicht
- poids



- overall height
- Höhe
- hauteur totale



- major diameter
- Breite, Breitseite
- grande largeur



- minor diameter
- Breite,
Schmalseite
- petite largeur



- Mündung
- neck finish
- bague



- glass types
- Glastypeen
- types de verre



Type I

Borosilicate glass with maximum possible chemical resistance
flint and amber

Borosilikatglas mit größtmöglicher chemischer Resistenz
klar und braun

Verre borosilicate à très haute résistance chimique
blanc et brun



Type II

Soda-silicate glass
special inner surface treatment
flint and amber

Natronkalk-Silikatglas
innenvergütet
klar und braun

Verre sodocalcique
surface interne traitée
blanc et brun



Type III

Soda-silicate glass
flint, amber and coloured

Natronkalk-Silikatglas
klar, braun und farbig

Verre sodocalcique
blanc, brun et coloré

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European product range

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North American product range

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C



Indian product range

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European product range

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A 2		Shaped bottles Meplat bottles, oval bottles, Montana bottles	Formflaschen Meplatflaschen, Ovalflaschen, Montanaflaschen	Flacons de forme Flacons méplats, flacons ovales, flacons Montana	p. 37
A 3		Dropper bottles Allround bottles, standard and special dropper bottles	Tropfflaschen Allroundflaschen, Standard- und Spezial-Tropfflaschen	Flacons goutte Flacons goutte type Allround, Flacons goutte standards et spéciaux	p. 40
A 4		Tablet bottles Screw-thread bottles, impact neck finish, Interpharma	Tablettengläser Schraubgewinde, Aufprellverschluss, Interpharma	Piluliers Bague à vis, cap-to-cap, Interpharma	p. 44
A 5		Wide-mouth jars Screw-threads	Weithalsgläser Schraubgewinde	Pots à large ouverture Bague à vis	p. 50
A 6		Cream pots	Cremetiegel	Pots crème	p. 51
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Syrup bottles

Sirupflaschen – Flacons sirop



Light glass bottles Syrup alpha
 Leichtglasflaschen Sirup alpha
Flacons allégés Sirop alpha

SPECIFICATIONS



4389, 6316	○	III	60,0	67,0	56	94,0	38,6	38,6	PP 28 S
6239	○	III	75,0	93,5	82	102,8	45,0	45,0	PP 28 S
6314	○	III	90,0	97,5	64	103,1	43,9	43,9	PP 28 S
4305, 6309	○	III	100,0	108,0	70	104,8	46,1	46,1	PP 28 S
4388, 6310	○	III	125,0	135,5	84	114,5	49,0	49,0	PP 28 S
4356, 6311	○	III	150,0	158,0	94	122,8	51,6	51,6	PP 28 S
4381	○	III	180,0	187,0	114	129,9	54,7	54,7	PP 28 S
4358	○	III	200,0	209,0	115	133,3	57,0	57,0	PP 28 S
4366	○	III	250,0	260,0	146	142,9	61,7	61,7	PP 28 S
4360, 6649	○	III	300,0	315,0	167	151,3	65,6	65,6	PP 28 S
8117	○	III	500,0	520,0	240	176,8	76,8	76,8	PP 28 S
8118	○	III	1000,0	1021,0	470	217,0	97,5	97,5	PP 28 S

Syrup bottles

Sirupflaschen – Flacons sirop



Syrup special
Sirup spezial
Sirop spécial

SPECIFICATIONS



ref		I/II III	ml	ml		mm	mm	mm	mm
4894	○	III	30,0	37,0	39,0	67,0	35,0	35,0	PP 28 S
4875	○	III	60,0	74,0	75,0	88,5	44,0	44,0	PP 28 S
4373	○	III	100,0	110,0	75,0	116,1	44,2	44,2	PFP 24 S
4212	○	III	100,0	111,0	92,5	113,0	46,2	46,2	PP 28 S
6308	○	III	115,0	115,0	70,0	109,0	46,1	46,1	PP 28 S
4859	○	III	100,0	118,0	90,0	114,8	46,3	46,3	PP 28 S
8164	○	III	100,0	118,0	90,0	110,0	48,0	48,0	GL 22 (orig.)
6310	○	III	125,0	135,5	84,0	114,5	49,0	49,0	PP 28 S
4918	○	III	125,0	135,0	92,0	116,5	49,5	49,5	PP 24 S
8346	○	III	160,0	200,0	121,0	116,0	62,0	62,0	PP 28 S
8802	○	III	200,0	213,0	118,0	133,3	57,0	57,0	PP 28 S
6470	○	III	200,0	217,0	118,0	134,5	57,5	57,5	PP 28 S
8044	○	III	200,0	227,0	120	135,5	58,0	58,0	PP 28 S
8414	○	III	200,0	225,0	120	124,4	61,7	61,7	PP 28 S
4166	○	III	200,0	230,0	125	147,4	55,0	55,0	PP 28 S
4627	○	III	200,0	228,0	148	148,0	55,0	55,0	PP 24 S
4925	○	III	200,0	210,0	182	158,0	52,0	52,0	PP 28 S
6317	○	III	250,0	282,0	135	142,5	63,3	63,3	PP 28 S
4773	○	III	380,0	393,0	355	195,0	80,0	80,0	PP 28 S
4926	○	III	400,0	410,0	270	191,5	64,0	64,0	PP 28 S
1570	○	III	500,0	546,0	255	183,5	76,0	76,0	PP 28 S
1572	○	III	1000,0	1106,0	436	229,0	96,5	96,5	PP 28 S

Syrup bottles
Sirupflaschen – Flacons sirop



Syrup with filling mark
Sirup mit Füllhöhenmarkierung
Sirop avec traite a jauge

SPECIFICATIONS

									
8080		III	60,0*	75,0	65	89,7	43,0	43,0	PP 28 S
6316-01		III	30,0*	60,0	56	94,0	38,6	38,6	PP 28 S
6239-01		III	60,0*	93,5	82	102,8	45,0	45,0	PP 28 S
6314		III	70,0*	97,5	64	103,1	43,9	43,9	PP 28 S
8547		III	70,0*	108,0	70	104,8	46,1	46,1	PP 28 S
6310-2		III	100,0*	133,0	82	114,5	49,0	49,0	PP 28 S
6317		III	250,0*	282,0	135	142,5	63,3	63,3	PP 28 S

* (Filling Mark)



Syrup bottles

Sirupflaschen – Flacons sirop



Euro-med bottles
Euro-Medizin-Flaschen
Flacons type Euromed

SPECIFICATIONS



0459	○	III	50,0	68,0	80	94,5	41,0	41,0	PP 28 S
0569	○	III	75,0	80,0	90	85,0	48,0	48,0	PP 28 S
0460	○	III	100,0	124,0	110	117,4	48,0	48,0	PP 28 S
0386	○	III	150,0	182,0	150	128,5	55,0	55,0	PP 28 S
0461	○	III	200,0	234,0	190	139,4	60,0	60,0	PP 28 S
0747	○	III	250,0	287,0	220	151,5	63,5	63,5	PP 28 S
368-3	○	III	300,0	347,0	240	161,4	67,0	67,0	PP 28 S
0369	○	III	500,0	546,0	360	183,4	78,0	78,0	PP 28 S

Syrup bottles
Sirupflaschen – Flacons sirop



EHV bottles
EHV-Flaschen
Flacons EHV

SPECIFICATIONS

	ref		I / II III	ml	ml		mm	mm	mm	mm
A 1	0500	○	III	30,0	33,5	38	74,0	34,0	34,0	GL 18
A 2	0362-5	○	III	50,0	54,0	57	97,5	37,0	37,0	GL 18 (orig.)
A 3	3023-2	○	III	100,0	106,0	92	117,0	45,0	45,0	GL 22 (orig.)
A 4	0543	○	III	125,0	131,0	114	125,0	48,5	48,5	GL 22 (orig.)
A 5	1370	○	III	150,0	158,0	132	132,0	52,0	52,0	GL 22 (orig.)
A 6	0474	○	III	250,0	262,0	167	148,5	61,5	61,5	GL 22
A 7	0609	○	III	500,0	512,0	315	183,7	76,0	76,0	GL 25 (orig.)
A 8	8118	○	III	1000,0	1021,0	470	217,0	97,5	97,5	PP 28 S



Syrup bottles

Sirupflaschen – Flacons sirop



Veral bottles
Veralflaschen
Flacons Véral

SPECIFICATIONS

ref		I / II III	ml	ml		mm	mm	mm	mm
6556	○	III	25,0	35,0	35	76,8	30,0	30,0	PP 28 S
6324	○	III	30,0	35,0	47	70,5	34,2	34,2	PP 28 S
6145	○	III	50,0	60,0	55	81,0	40,5	40,5	PP 28 S
6306-1	○	III	100,0	118,0	86	96,8	51,2	51,2	PP 28 S
6146	○	III	125,0	140,0	102	97,5	56,0	56,0	PP 28 S
6601	○	III	150,0	169,0	115	111,0	56,8	56,8	PP 28 S
8430	○	III	200,0	226,0	125	118,5	63,0	63,0	PP 28 S
6149	○	III	250,0	281,0	160	133,0	65,0	65,0	PP 28 S
6330	○	III	500,0	548,0	285	161,0	82,0	82,0	PP 28 S
0651	○	III	1000,0	1090,0	485	206,2	100,6	100,6	PP 28 S

Syrup bottles

Sirupflaschen – Flacons sirop



Combi bottles
Kombiflaschen
Flacons combinés

SPECIFICATIONS



4071	○	III	50,0	60,0	50	80,5	40,0	40,0	PP 28 S
4990	○	III	100,0	115,0	85	97,5	51,0	51,0	PP 28 S
4078	○	III	150,0	170,0	88	111,0	56,5	56,5	PP 28 S
8034	○	III	200,0	225,0	135	122,0	62,0	62,0	PP 28 S
4079	○	III	250,0	280,0	153	131,3	67,5	67,5	PP 28 S
4728	○	III	300,0	330,0	185	136,5	71,5	71,5	PP 28 S
4261	○	III	500,0	550,0	285	186,9	75,0	75,0	PP 28 S
8030	○	III	750,0	775,0	415	223,0	80,5	80,5	PP 28 S
4263	○	III	1000,0	1105,0	450	231,0	96,0	96,0	PP 28 S

Shaped bottles

Formflaschen – Flacons de forme



Meplat bottles
Meplatflaschen
Flacons méplats

SPECIFICATIONS

ref		I / II III	ml	ml		mm	mm	mm	mm
1507		III	25,0	29,0	48,5	78,70	40,5	21,5	GL 18
1248		III	50,0	55,0	82,0	103,70	44,0	26,5	GL 22
1561		III	75,0	82,5	125,0	129,50	50,0	29,0	GL 22
0183		III	100,0	106,0	143,0	137,65	53,0	31,0	PP 25
1390		III	125,0	133,0	148,0	141,85	57,0	33,0	PP 25
4783,1355		III	150,0	157,0	180,0	154,00	58,2	35,5	GL22
0019		III	200,0	211,0	210,0	167,00	63,0	39,0	GL22
0018-1		III	250,0	260,0	255,0	188,60	68,5	40,5	PP 25
8404		III	500,0	515,0	440,0	219,00	87,0	51,0	PP 28 S
4161-2		III	700,0	715,0	500,0	180,00	95,0	67,8	PP 28 S

Shaped bottles

Formflaschen – Flacons de forme



Oval bottles

Ovalflaschen

Flacons ovales

SPECIFICATIONS



ref		I/II III	ml	ml	mm	mm	mm	mm	mm
4858	○	III	125,0	137,0	148	135,0	60,0	36,0	GL 22
4018	○	III	200,0	235,0	200	162,0	65,5	35,5	PP 28 S
4471	○	III	200,0	230,0	195	157,0	66,0	46,3	Screw 7,5 R
1313	○	III	250,0	260,0	264	182,6	85,0	38,0	PP 28 S / MCA
1263	○	III	250,0	263,0	280	183,0	69,0	34,0	PP 28 S
1396	○	III	250,0	260,0	257	162,5	75,5	43,0	PP 28 S
11425	○	III	250,0	260,0	257	165,5	75,5	43,0	Screw
1264	○	III	500,0	515,0	463	219,0	86,0	50,5	PP 28 S
4740	○	III	1000,0	1021,0	690	264,0	108,5	63,0	PP 28 S

Shaped bottles
Formflaschen – Flacons de forme



Montana bottles
Montanaflaschen
Flacons Montana

SPECIFICATIONS

									
1261		III	50,0	54,0	63	103,7	43,0	24,5	PP 28 S
1266		III	100,0	109,0	125	129,4	52,0	30,5	PP 28 S
1260		III	200,0	220,0	220	180,0	64,5	37,5	PP 28 S



A 1

A 2

A 3

A 4

A 5

A 6

A 7

A 8

A 9

A 10

Dropper bottles

Tropfflaschen – Flacons goutte



Allround bottles
Allroundflaschen
Flacons goutte type
Allround

SPECIFICATIONS



1304	○	III	5,0	7,0	27,0	53,2	22,5	22,5	GL 18 (orig.)
1135	○	III	10,0	14,0	28,0	60,7	25,0	25,0	GL 18 (orig.), Special
4709	○	III	10,0	13,5	26,0	61,0	25,0	25,0	GL 18 (orig.)
1136	○	III	15,0	20,0	34,0	67,7	28,5	28,5	Special
1137	○	III	20,0	25,0	38,0	72,2	29,5	29,5	GL 18 (orig.)
1137-03	○	III	20,0	23,5	35,0	72,7	28,8	28,8	GL 18 (orig.)
2736	○	III	20,0	25,0	35,5	72,2	29,5	29,5	GL 18 (orig.)
1139	○	III	30,0	36,0	45,0	80,2	33,0	33,0	GL 18 (orig.)
2737	○	III	30,0	34,0	48,0	83,2	32,5	32,5	GL 18 (orig.)
1140, 4637	○	III	50,0	58,0	63,0	91,7	38,0	38,0	GL 18 (orig.), Special
1142	○	III	100,0	110,0	103,0	110,7	47,0	47,0	GL 18 (orig.)
2739	○	III	100,0	112,5	97,0	112,2	46,5	46,5	GL 18 (orig.), Special

Dropper bottles

Tropfflaschen – Flacons goutte



Standard and special dropper bottles

Standard- und Spezial-Tropfflaschen

Flacons goutte standards et spéciaux

SPECIFICATIONS



ref		I/II/III	ml	ml		mm	mm	mm	mm
1135-5	○	III	10,0	13,8	26,0	60,5	25,5	25,5	GL 18 (orig.)
1391	○	III	10,0	12,0	31,0	63,7	24,2	24,2	GL 18 (orig.)
1161	○	III	10,0	12,5	28,0	62,5	24,2	24,2	GL 18 (orig.)
1161-06	○	III	10,0	12,5	27,0	61,0	24,0	24,0	GL 18
1175	○	III	10,0	14,3	22,0	62,0	23,8	23,8	Special
1322	○	III	10,0	14,0	24,0	58,0	25,4	25,4	GL 18 (orig.)
1347	○	III	10,0	16,0	23,0	63,2	25,0	25,0	GL 18 (orig.)
1379	○	III	10,0	14,0	22,0	52,2	28,0	28,0	GL 18 (orig.)
1366	○	III	15,0	18,0	33,0	69,7	26,7	26,7	GL 18 (orig.)
4180	○	III	15,0	20,0	25,0	52,0	32,0	32,0	Special
0145	○	III	20,0	25,0	33,0	66,5	30,5	30,5	GL 20
1192	○	III	20,0	25,5	40,5	78,5	28,8	28,8	Special
1340	○	III	20,0	26,0	38,0	75,2	29,8	29,8	Special
1329	○	III	22,0	25,5	34,0	74,0	29,0	29,0	GL 18 (orig.)
1367	○	III	25,0	31,0	32,0	71,0	32,5	32,5	GL 18 (orig.)
0776	○	III	25,0	30,0	38,0	70,5	32,0	32,0	GL 18 (orig.)
8119	○	III	30,0	36,0	45,0	85,2	31,8	31,8	GL 18 (orig.)
1352-7	○	III	30,0	36,5	40,0	84,7	31,0	31,0	GL 18 (orig.), Special
1123	○	III	30,0	36,0	42,0	82,5	32,0	32,0	GL 18 (orig.)
0306-3	○	III	30,0	35,0	37,0	80,0	31,0	31,0	GL 20
0344-6	○	III	30,0	35,0	42,0	79,0	32,4	32,4	Special

Continued on next page

Dropper bottles

Tropfflaschen – Flacons goutte



Standard and special dropper bottles

Standard- und Spezial-Tropfflaschen

Flacons goutte standards et spéciaux

SPECIFICATIONS



Continued from previous page:

5000-1	○	III	40,0	46,0	56,0	78,7	37,0	37,0	Special
0263	○	III	50,0	56,5	60	88,5	38,2	38,2	Special
1369	○	III	50,0	53,0	60	92,0	36,5	36,5	GL 18 (orig.)
1393	○	III	50,0	56,0	55	91,7	37,0	37,0	GL 18 (orig.)
1392	○	III	50,0	57,0	54	90,6	37,0	37,0	GL 18 (orig.)
1392-01	○	III	50,0	57,0	54	90,0	37,0	37,0	GL 20
1398	○	III	50,0	57,5	60	90,0	39,0	39,0	GL 18 (orig.)
4182	○	III	50,0	58,0	57	76,2	42,5	42,5	GL 18, Special
1593-1	○	III	60,0	70,0	85	95,7	42,0	42,0	GL 18 (orig.)
0482-1	○	III	75,0	81,0	98	122,7	38,5	38,5	GL 18 (orig.)
0463-3	○	III	100,0	108,0	92	109,5	45,0	45,0	GL 20
0772-5	○	III	100,0	113,0	87	106,9	46,5	46,5	Special
8120	○	III	100,0	108,0	93	116,2	45,0	45,0	GL 18 (orig.)
1348	○	III	100,0	106,0	100	113,2	45,5	45,5	GL 18 (orig.)
1348-09	○	III	100,0	112,5	100	111,7	46,5	46,5	GL 18 (orig.), Special
4713	○	III	100,0	120,0	106	107,0	52,0	52,0	GL 18 (orig.)

Tablet bottles

Tablettengläser – Piluliers



Screw-thread bottles
Schraubgewinde
Bague à vis

SPECIFICATIONS



ref			ml	ml		mm	mm	mm	mm
6502	○	III	30,0	40,0	46	73,4	33,0	33,0	PP 31,5 S
6113	○	III	30,0	30,0	45	61,8	33,5	33,5	PP 31,5 S
3087	○	III	35,0	46,0	58	62,5	43,0	43,0	PP 31,5 S
8385	○	III	50,0	65,0	65	77,0	43,0	43,0	PP 31,5 S
6114	○	III	50,0	57,0	73	73,5	43,0	43,0	PP 31,5 S
4937	○	III	69,0	69,0	75	82,0	43,0	43,0	PP 31,5 S
6115	○	III	70,0	77,0	80	84,5	44,5	44,5	PP 31,5 S
6588	○	III	85,0	103,0	86	81,5	51,0	51,0	PP 31,5 S
1082	○	III	75,0	93,0	170	133,0	63,5	63,5	PP 31,5 S
1503	○	III	100,0	120,0	110	95,0	53,0	53,0	PP 31,5 S
1578	○	III	112,0	122,0	104	97,0	52,3	52,3	PP 31,5 S
6582	○	III	125,0	140,0	90	105,5	51,0	51,0	PP 31,5 S
6583	○	III	150,0	165,0	100	120,0	51,0	51,0	PP 31,5 S

Tablet bottles

Tablettengläser – Piluliers



Screw-thread bottles
Schraubgewinde
Bague à vis

SPECIFICATIONS



1564	○	III	50,0	55,5	55	70,0	40,0	40,0	PP 35 S
1231	○	III	85,0	94,0	92	94,0	46,8	46,8	PP 35 S
1565	○	III	100,0	128,0	99	113,0	47,0	47,0	PP 35 S
1190	○	III	200,0	221,5	168	121,0	61,0	61,0	PP 35 S
6586	○	III	35,0	48,0	60	54,5	45,5	45,5	PP 38 S
6587	○	III	60,0	83,0	75	68,0	51,0	51,0	PP 38 S
4733	○	III	75,0	87,0	99	87,0	46,3	46,3	PP 38 S
6588	○	III	85,0	103,0	86	81,5	51,0	51,0	PP 38 S
6589	○	III	160,0	168,0	127	103,5	57,0	57,0	PP 38 S

Tablet bottles

Tablettengläser – Piluliers



Screw-thread bottles
Schraubgewinde
Bague à vis

SPECIFICATIONS



ref			ml	ml		mm	mm	mm	mm
1505	○	III	10,0	13,0	21,0	49,5	24,7	24,7	Special
1625	○	III	15,0	18,0	25,0	50,0	29,5	29,5	Special
4920	○	III	20,0	31,5	37,0	56,0	36,0	36,0	Special
1602	○	III	30,0	38,0	47,0	71,0	34,7	34,7	PP 28 S
4885	○	III	30,0	32,5	45,0	64,7	34,0	34,0	PP 28 S
8130	○	III	40,0	42,5	53,0	57,0	45,0	45,0	PP 28 S
8076	○	III	35,0	35,5	50,0	65,4	36,0	36,0	RD 28
4956	○	III	40,0	41,5	48,5	70,0	36,0	36,0	Special
8048	○	III	60,0	62,0	66,0	73,0	45,0	45,0	PP 28 S
8077	○	III	65,0	68,0	79,0	79,3	42,5	42,5	RD 35
4954	○	III	70,0	81,5	83,0	84,0	45,0	45,0	Special
4968	○	III	100,0	100,5	110,0	101,0	45,0	45,0	Special
8188	○	III	160,0	180,0	136	123,0	53,0	53,0	Special
4379	○	III	300,0	322,0	190	126,4	67,0	67,0	PP 53 S

Tablet bottles
Tablettengläser – *Piluliers*



Impact neck finish Series A
Aufprellverschluss Serie A
Cap-to-cap Série A

SPECIFICATIONS

									
8093	○	III	75,0	85,0	62	85,8	42,0	42,0	34,10
4484-3	○	III	125,0	143,5	87	89,2	53,5	53,5	32,35
8094	○	III	175,0	185,0	110	110,0	53,5	53,5	34,80



Tablet bottles

Tablettengläser – Piluliers



Impact neck finish Series B
Aufprellverschluss Serie B
Cap-to-cap Série B

SPECIFICATIONS



ref		I/II III	ml	ml		mm	mm	mm	mm
6546	○	III	10,0	17,0	16,0	46,2	26,6	26,6	22,70
6595	○	III	5,0	13,5	16,0	39,5	26,6	26,6	22,70
6596	○	III	10,0	18,3	18,0	41,0	30,0	30,0	25,80
6585	○	III	15,0	20,0	25,0	48,5	30,0	30,0	26,46
6319	○	III	15,0	23,0	24,0	51,0	30,0	30,0	25,80
6543	○	III	20,0	26,0	25,0	59,6	29,2	29,2	22,70
6307	○	III	28,0	28,3	29,0	60,5	30,0	30,0	25,80
1590	○	III	40,0	43,0	38,0	48,5	40,0	40,0	36,05
6318	○	III	40,0	44,5	37,0	68,0	35,0	35,0	25,80
6074	○	III	40,0	47,0	46,0	55,5	39,8	39,8	36,05
8412	○	III	50,0	56,0	42,5	62,5	40,0	40,0	36,05
6315	○	III	50,0	72,0	46,0	74,0	42,0	42,0	25,80
1516	○	III	75,0	83,0	58,0	62,5	50,0	50,0	36,05
1517	○	III	80,0	97,0	66,0	70,5	50,0	50,0	36,05
1664	○	III	100,0	112,0	70,0	79,5	50,0	50,0	28,80
1518	○	III	125,0	135,0	87,0	93,9	50,0	50,0	36,05
1521	○	III	150,0	160,0	83,0	106,7	50,0	50,0	36,05
6636-2	○	III	200,0	215,0	129,0	96,5	63,0	63,0	36,05

Tablet bottles
Tablettengläser – *Piluliers*



SPECIFICATIONS

ref			ml	ml		mm	mm	mm	mm
4951	○	III	35,0	48,0	63	52,7	45,5	45,5	40,50
4980	○	III	60,0	80,0	81	68,0	50,0	50,0	40,50
4982	○	III	85,0	100,0	90	81,5	50,0	50,0	40,50
4983	○	III	125,0	134,0	114	103,5	50,0	50,0	40,50
4984	○	III	160,0	195,0	134	86,0	65,0	65,0	55,90
4985	○	III	160,0	174,0	130	103,5	57,0	57,0	40,50
4986	○	III	250,0	285,0	196	121,5	65,0	65,0	55,90
4987	○	III	400,0	443,0	256	141,0	75,0	75,0	55,90
4988	○	III	630,0	650,0	370	163,8	85,0	85,0	55,90
4989	○	III	1000,0	1013,0	435	179,0	100,0	100,0	55,90



Wide-mouth jars

Weithalsgläser – Pots à large ouverture



Screw-threads
Schraubgewinde
Bague à vis

SPECIFICATIONS



ref		I/II/III	ml	ml		mm	mm	mm	mm
0755	○	III	25,0	31,0	40	57,0	36,0	36,0	GL 28
6063	○	III	30,0	40,0	50	68,0	36,0	36,0	GL 32
6064	○	III	50,0	64,0	65	75,0	44,0	44,0	GL 32
6057	○	III	50,0	64,5	72	66,5	44,0	44,0	Jaycap 43
6065	○	III	75,0	92,0	85	79,0	48,5	48,5	GL 40
6061	○	III	100,0	115,0	100	92,5	50,0	50,0	GL 40
6062	○	III	100,0	105,0	102	85,5	48,5	48,5	GL 45
6066	○	III	125,0	140,0	110	95,0	54,0	54,0	GL 45
6207	○	III	150,0	170,0	130	104,0	57,0	57,0	GL 45
4278	○	III	150,0	180,0	105	62,5	71,0	71,0	Special
6132	○	III	200,0	230,0	185	109,0	63,0	63,0	GL 55
6128	○	III	250,0	280,0	200	113,0	69,0	69,0	GL 55
6296	○	III	300,0	330,0	230	127,0	70,0	70,0	GL 55
4279	○	III	300,0	333,0	161	107,5	71,0	71,0	Special
6013	○	III	500,0	565,0	335	154,0	84,0	84,0	GL 55
6016	○	III	1000,0	1080,0	560	180,5	103,5	103,5	GL 68

Cream pots

Cremetiegel – Pots crème



Cream pots
Cremetiegel
Pots crème

SPECIFICATIONS



ref		I/II/III	ml	ml		mm	mm	mm	mm
1502-1	○	III	15,0	24,0	38	46,00	35,5	35,5	GL 31,5
6043-4	○	III	30,0	32,0	45	39,00	42,5	42,5	GL 31,5 Special
8147	○	III	30,0	35,0	46	42,00	43,0	43,0	RD 40
4477	○	III	50,0	69,0	69	61,50	46,5	46,5	GL 45
8376	○	III	80,0	80,0	107	143,15	40,2	40,2	Screw
4650	○	III	50,0	60,5	64	56,50	46,5	46,5	GL 42
6094	○	III	60,0	63,0	68	44,00	53,5	53,5	Screw
4892	○	III	60,0	75,5	86	49,50	56,3	56,3	Screw
6254	○	III	70,0	80,0	76	68,00	47,0	47,0	Screw
8179	○	III	100,0	120,0	95	68,50	56,1	56,1	Screw

Injection bottles

Injektionsflaschen – Flacons antibiotiques



Injection bottles

Injektionsflaschen

Flacons antibiotiques

SPECIFICATIONS



ref		I / II / III	ml	ml		mm	mm	mm	mm
8179	○	I	3,5	7,0	10	34,0	21,0	21,0	20,00
8033	○	I	10,0	15,0	20	49,0	27,0	27,0	20,00
50407	○	I	10,0	14,0	20	53,0	25,0	25,0	20,00
7775	○	I	15,0	21,0	24	55,0	30,0	30,0	20,00
1241	○	III	15,0	18,2	24	62,5	25,0	25,0	20,00
1389	○	III	15,0	17,0	26	58,5	26,5	26,5	20,00
1343	○	III	17,0	17,0	24	58,8	26,5	26,5	20,00
8819	○	I	20,0	27,0	33	58,0	32,0	32,0	20,00
50205	○	I	20,0	27,0	30	58,0	32,0	32,0	20,00
0281	○	II / III	20,0	26,0	29	58,0	32,0	32,0	20,00
8820	○	I	30,0	40,0	40	65,0	37,0	37,0	20,00
50019D	○	I	30,0	38,0	38	63,0	36,0	36,0	20,00
1377	○	II / III	30,0	38,0	35	62,8	36,0	36,0	20,00
8818	○	I	50,0	63,0	57	74,0	43,0	43,0	20,00
50018B1	○	I	50,0	61,0	51	73,0	42,0	42,0	20,00
1045	○	III	50,0	64,0	40	73,0	42,5	42,5	20,00
0587	○	II / III	50,0	60,0	50	73,0	42,5	42,5	20,00
8160	○	I	60,0	74,0	58	79,0	44,0	44,0	20,00
8946	○	I	100,0	125,0	80	94,0	52,0	52,0	20,00
50023B1	○	I	100,0	124,0	92	94,5	51,0	51,0	20,00
1378	○	II / III	100,0	119,0	89	94,5	51,6	51,6	20,00
7752	○	I	200,0	245,0	164	114,0	65,0	65,0	20,00

Infusion bottles

Infusionsflaschen – Flacons perfusion



Infusion bottles

Infusionsflaschen

Flacons perfusion

SPECIFICATIONS



CA 2318	○	I	50,0	68,0	55	68,0	46,0	46,0	32,00
6328	○	II	50,0	68,0	55	68,0	46,0	46,0	32,00
6051-05	○	II	50,0	77,0	70	75,0	46,0	46,0	32,00
CA 2326	○	I	100,0	125,0	95	104,0	49,0	49,0	32,00
CA 2300	○	I	100,0	125,0	95	104,0	49,0	49,0	32,00
6343	○	II	100,0	125,0	95	104,0	49,0	49,0	32,00
6281	○	II	100,0	141,0	105	105,8	52,0	52,0	29,00
6281-01	○	II	100,0	141,0	105	105,8	52,0	52,0	29,00
6332	○	II	125,0	147,0	95	98,0	54,4	54,4	32,00
6164	○	II	150,0	207,0	142	102,5	66,0	66,0	32,00
CA 2304	○	I	250,0	308,0	170	136,0	66,0	66,0	32,00
6199	○	II	250,0	308,0	170	136,0	66,0	66,0	32,00
6305	○	II	250,0	313,0	160	134,5	67,0	67,0	29,00
6305-01	○	II	250,0	313,0	160	134,5	67,0	67,0	29,00
6244-01	○	II	250,0	297,0	150	125,0	68,1	68,1	32,00
CA 2305	○	I	500,0	588,0	288	177,0	78,0	78,0	32,00
6289	○	II	500,0	588,0	225	177,0	78,0	78,0	32,00
6282	○	II	500,0	582,0	260	177,0	78,6	78,6	29,00
6282-01	○	II	500,0	582,0	260	177,0	78,6	78,6	29,00
6245-01	○	II	500,0	570,0	220	147,0	86,0	86,0	32,00
6359-1	○	II	1000,0	1120,0	385	225,0	95,0	95,0	32,00

Transfusion bottles
Transfusionsflaschen – *Flacons transfusion*



Transfusion bottles
Transfusionsflaschen
Flacons transfusion

SPECIFICATIONS

11	○	II	500,0	600,0	430	207,0	78,0	78,0	78,0	Screw



Chemical / Technical
Chemisch-Technisch – Pour produits chimiques / techniques



Chemical/Technical
Chemisch-Technisch
Flacons perfusion

SPECIFICATIONS

ref		I / II III	ml	ml		mm	mm	mm	mm
2769	○	III	1000,0	1160,0	650	219,2	101,0	101,0	Special
3922	○	III	1250,0	1378,0	723	248,2	101,0	101,0	Special
8792	○	III	2500,0	2750,0	1350	286,5	138,0	138,0	Special
6002	○	III	2500,0	2800,0	1310	297,5	147,5	147,5	Special

Content Moulded Glass Inhalt – *contenu*

A



European product range

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B



North American product range

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C



Indian product range

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North American product range

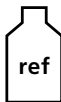
B 1		Moulded Serum Bottle	p. 58
B 2		Wide Mouth Packer	p. 61
B 3		Narrow Mouth IV	p. 62
B 4		Boston Round	p. 64
B 5		Peroxide Bottle	p. 64
B 6		Screw Neck Blake	p. 65
B 7		Shelf Line S/N Blake	p. 65
B 8		Iodine Bottle	p. 66
B 9		Science Bottle	p. 67
B 10		Animal Health	p. 67

Moulded Serum Bottle



13 mm Finish Serum

SPECIFICATIONS

									
9542	○	I	3,0	4	13,6	41,3	21,4	(N/A)	13,00
7233	○	I	5,0	7,2	11	39,0	21,0	21,0	13,00
5792	○	I	6,0	9	15,9	46,8	23	(N/A)	13,00
8125	○	I	10,0	15,1	15	48,0	27,0	27,0	13,00
7496	○	I	20,0	26,1	31	59,0	33,0	33,0	13,00

20 mm Finish Serum

SPECIFICATIONS

8179	○	I	3,5	6,6	10	34,0	21,0	21,0	20,00
7774	○	I	5,0	7,3	13	39,0	21,0	21,0	20,00
8033	○	I	10,0	15,0	20	49,0	27,0	27,0	20,00

Continued on next page

All bottles listed above are manufactured in type I.
All bottles are available in flint (clear) and amber (brown) glass.

Many bottles are available with different neck styles and sizes.
The ones listed are the most common.
Please contact the account executive for more details.

Moulded Serum Bottle

20 mm Finish Serum

SPECIFICATIONS



Continued from previous page

8819	○	I	20,0	26,6	33	59,0	33,0	33,0	20,00
S0019D	○	I	30,0	38,0	38	63,0	36,0	36,0	20,00
8820	○	I	30,0	39,6	40	65,0	37,0	37,0	20,00
8818	○	I	50,0	63,3	57	73,0	43,0	43,0	20,00
8946	○	I	100,0	125,0	80	94,0	52,0	52,0	20,00
7752	○	I	200,0	245,0	164	114,0	65,0	65,0	20,00
7844	○	I	6,0	10,1	16	47,0	23,0	23,0	20,00
8706	○	I	10,0	15,1	19	53,0	25,0	25,0	20,00
S0407	○	I	10,0	14,0	20	53,0	25,0	25,0	20,00
S0205	○	I	20,0	27,0	30	58,0	32,0	32,0	20,00
7847	○	I	30,0	38,1	42	76,0	33,0	33,0	20,00
S0018B1	○	I	50,0	61,0	51	73,0	42,0	42,0	20,00
9280	○	I	50,0	61,0	57	83,0	40,0	40,0	20,00
7848	○	I	60,0	73,6	61	90,0	40,0	40,0	20,00
7849	○	I	100,0	125,8	96	109,0	48,0	48,0	20,00
8149	○	I	125,0	156,7	103	106,0	54,0	54,0	20,00
S883	○	I	2,5	3,2	18,7	39,3	21	(N/A)	20,00
S0407	○	I	10	14,5	19,6	53,2	25,4	(N/A)	20,00
S3472	○	I	10	14,5	19	53,2	25	(N/A)	20,00
S709B	○	I	15	19,5	24,7	54,8	22,2	(N/A)	20,00
S0205	○	I	20	26	30	58,3	32,1	(N/A)	20,00
8299	○	I	50	60,5	51,4	73	43,4	(N/A)	20,00
S1227	○	I	60	72	62	79,8	44	(N/A)	20,00

All bottles listed above are manufactured in type I.
All bottles are available in flint (clear) and amber (brown) glass.

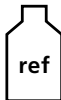
Many bottles are available with different neck styles and sizes.
The ones listed are the most common.
Please contact the account executive for more details.

Moulded Serum Bottle



32 mm Finish ISO Serum

SPECIFICATIONS

										
	ref		I / II / III	ml	ml	mm	mm	mm	mm	mm
2318		I	50,0	68,0	55	68,0	46,0	46,0	32,00	
2300		I	100,0	125,0	95	104,0	49,0	49,0	32,00	
2321		I	150,0	207,0	139	103,0	66,0	66,0	32,00	
2304		I	250,0	308,0	170	136,0	66,0	66,0	32,00	
2305		I	500,0	588,0	289	177,0	78,0	78,0	32,00	

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Wide Mouth Packer



Wide Mouth Packer

SPECIFICATIONS



ref		I/II/III	ml	ml	mm	mm	mm	mm
S0902R	○	III	6,0	8,4	18	44,0	24,0	24,0
S0845XR	○	III	8,5	11,8	21	52,0	25,0	25,0
S0983R	○	III	10,0	13,5	21	49,0	28,0	28,0
S1005R4	○	III	15,0	22,0	28	51,0	31,0	31,0
S0984R	○	III	20,0	24,5	36	54,0	33,0	33,0
S0985R3	○	III	30,0	39,0	46	66,0	37,0	37,0
S0953R4X	○	III	40,0	49,7	60	77,0	38,0	38,0
S0940R4	○	III	50,0	55,5	62	70,0	42,0	42,0
S0941R6	○	III	60,0	70,0	71	76,0	45,0	45,0
S0947R3	○	III	75,0	89,5	82	82,0	47,0	47,0
S0948R2X	○	III	100,0	112,0	89	88,0	50,0	50,0
S0949R2	○	III	150,0	171,0	131	100,0	58,0	58,0
M1053R	○	III	200,0	225,0	138	111,0	62,0	62,0
L0770R	○	III	250,0	274,5	168	120,0	65,0	65,0
L0768R	○	III	300,0	335,0	196	127,0	69,0	69,0
L0769R	○	III	400,0	437,0	216	138,0	75,0	75,0
L0779R	○	III	500,0	533,4	270	198,0	81,0	81,0
L0135RX	○	III	625,0	640,0	319	155,0	86,0	86,0
L0692R	○	III	750,0	803,2	346	167,0	93,0	93,0
L0693R	○	III	950,0	1002,7	388	180,0	100,0	100,0
L0694R	○	III	1250,0	1275,0	503	192,0	107,0	107,0
L0672R	○	III	2500,0	2759,7	921	241,0	141,0	141,0

Narrow Mouth IV



Graduated Narrow Mouth IV

SPECIFICATIONS

	ref		I/II/III	ml	ml	mm	mm	mm	mm
9235		○	I	100,0	139,4	103	113,0	51,0	51,0
9224		○	I	200,0	262,0	170	136,0	63,0	63,0
8697		○	I	500,0	651,8	326	185,0	84,0	84,0

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The ones listed are the most common.
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Narrow Mouth IV



28 mm Finishes Narrow Mouth IV

SPECIFICATIONS



9444	○	I	100,0	128,0	113	104,0	50,0	50,0	28,00
9422	○	I	200,0	237,7	166	131,0	61,0	61,0	28,00
9424	○	I	250,0	304,9	191	151,0	64,0	64,0	28,00
9419	○	I	500,0	660,5	305	185,0	84,0	84,0	28,00
9420	○	I	1000,0	1225,4	528	223,0	101,0	101,0	28,00
L900	○	II	250,0	383,5	229	153,6	70,7	70,7	28,00
L901	○	II	500,0	587,9	313	185,8	78,0	78,0	28,00
L705	○	II	1000,0	1201,5	580	223,0	100,8	100,8	28,00

with Bailbands

SPECIFICATIONS

9262	○	I	100,0	128,0	113	105,0	51,0	51,0	28,00
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Boston Round

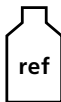


Peroxide Bottle



Boston Round

SPECIFICATIONS

									
S0638R4	○	III	15,0	17,0	27	68,0	26,0	26,0	400-18-405
S0766R5W	○	III	30,0	33,0	37	79,0	31,0	31,0	400-20
S4588R	○	III	60,0	64,0	62	94,0	40,0	40,0	400-20-405
S4589R	○	III	120,0	128,0	98	112,0	49,0	49,0	400-22-405 CR
M1113R	○	III	240,0	250,0	164	136,0	60,0	60,0	400-24-405
L0134R	○	III	480,0	493,0	284	168,0	75,0	75,0	400-28

Peroxide Bottle

SPECIFICATIONS

RS1626R	○	III	120,0	136,1	99	122,0	49,0	49,0	400-24
M0287R	○	III	240,0	273,0	198	151,0	61,0	61,0	400-24

Screw Neck Blake



Shelf Line S/N Blake



Screw Neck Blake

SPECIFICATIONS



S1067R		III	30,0	35,0	46	76,0	923,0	667,0	400-22
S1022R		III	60,0	68,1	70	98,0	1128,0	769,0	400-28
S1000RX		III	90,0	101,5	97	107,0	1282,0	897,0	400-28
S1045R		III	120,0	132,0	113	116,0	1359,0	949,0	400-28
L0257R1		III	480,0	502,0	388	197,0	1974,0	1462,0	430-28

Shelf Line S/N Blake

SPECIFICATIONS

S1337R1		III	15,0	19,5	31	56,0	31,0	25,0	400-22 CR
S2136R		III	30,0	37,5	51	70,0	41,0	28,0	400-28
S2471R		III	50,0	58,0	74	81,0	45,0	33,0	400-33 SPECIAL
S1483R1P		III	75,0	89,6	87	92,0	50,0	34,0	400-33-405 CR
S1306R1		III	100,0	114,0	113	99,0	52,0	41,0	400-33
S1307R		III	120,0	138,5	128	112,0	52,0	41,0	400-33
S1308R		III	150,0	171,0	128	129,0	52,0	42,0	400-33

Iodine Bottle



SPECIFICATIONS

S3819R	☐	III	7,0	10,9	27	56,0	23,0	23,0	400-18-405
S3821R	☐	III	15,0	16,6	38	66,0	26,0	26,0	400-18-405
S3822R	☐	III	30,0	33,5	50	79,0	31,0	31,0	400-18-405

Science Bottles



Animal Health



B 1

B 2

B 3

B 4

B 5

B 6

B 7

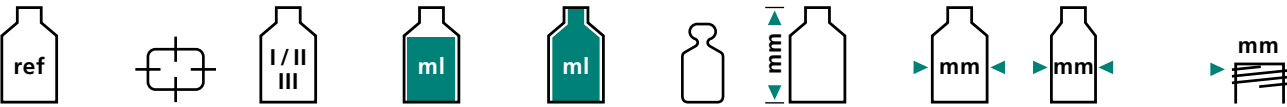
B 8

B 9

B 10

Science Bottles

SPECIFICATIONS



8904	○	I	100,0	157,0	142	119,0	55,0	55,0	33,00
9362	○	I	250,0	333,6	227	147,0	70,0	70,0	33,00
8918	○	I	500,0	705,9	337	186,0	88,0	88,0	33,00
9309	○	I	1000,0	1184,0	553	222,0	102,0	102,0	33,00

Animal Health

SPECIFICATIONS

13311	○	I	250,0	279,0	199	159,0	60,0	60,0	30,00
9410	○	I	500,0	539,5	284	193,0	75,0	75,0	30,00

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Content Moulded Glass Inhalt – *contenu*

A



European product range

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B



North American product range

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C



Indian product range

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Indian product range

C1		Type I bottles National	p. 70
		Type I bottles Victory	p. 71
		Type I bottles Metro	p. 72
		Type I bottles Eros-N	p. 72
		Type I bottles Others	p. 73



C2		Type I / Infusion bottles WOM	p. 74
		Type I / Infusion bottles DIN	p. 74
		Type I / Infusion bottles P/N	p. 75
		Type I / Infusion bottles Others	p. 76

C3		Type III bottles Eros	p. 77
		Type III bottles Atlas	p. 77
		Type III bottles Galaxy	p. 78
		Type III bottles Others	p. 78

Type I bottles

- C1
- C2
- C3



National

SPECIFICATIONS

									
B - 1020	○	I	3	5,50	10,00	30,00	21,50	21,50	20 STD
B - 1030	○	I	5	10,00	15,00	39,00	24,62	24,62	20 STD
B - 1010	○	I	10	14,25	19,50	50,00	25,00	25,00	20 STD
B - 1040	○	I	12	16,50	21,00	53,00	26,00	26,00	20 STD
B - 2011	○	I	15	19,50	23,50	57,00	27,00	27,00	20 STD
B - 2020	○	I	20	26,75	27,00	57,50	32,00	32,00	20 STD

Type I bottles



- C 1
- C 2
- C 3

SPECIFICATIONS

									
B - 1051	○	I	5	8,80	14,50	36,20	24,50	24,50	20 STD
B - 1060	○	I	10	15,00	21,50	53,00	25,50	25,50	20 STD
B - 2072	○	I	15	19,50	23,50	57,00	26,85	26,85	20 STD
B - 3010	○	I	30	37,00	39,00	61,50	37,87	37,87	20 STD
B - 4010	○	I	50	67,00	52,00	73,50	44,25	44,25	20 STD
B - 5010	○	I	100	131,00	97,00	96,50	53,00	53,00	20 STD

Type I bottles

C1

C2

C3



Metro

SPECIFICATIONS



B - 1210	○	I	2	3,00	7,00	35,64	15,60	15,60	13 STD
B - 1190	○	I	3	4,00	7,50	37,50	16,50	16,50	13 STD
B - 1570	○	I	3	4,30	10,00	31,50	21,50	21,50	13 SPL
B - 1080	○	I	5	8,00	13,75	41,28	22,50	22,50	13 STD
B - 1200	○	I	10	12,75	18,50	47,00	26,25	26,25	14 STD

Eros-N

SPECIFICATIONS

B - 2200	○	I	15	17,00	22,50	57,50	25,50	25,50	20 STD
B - 3050	○	I	30	37,50	39,00	66,50	35,00	35,00	20 STD

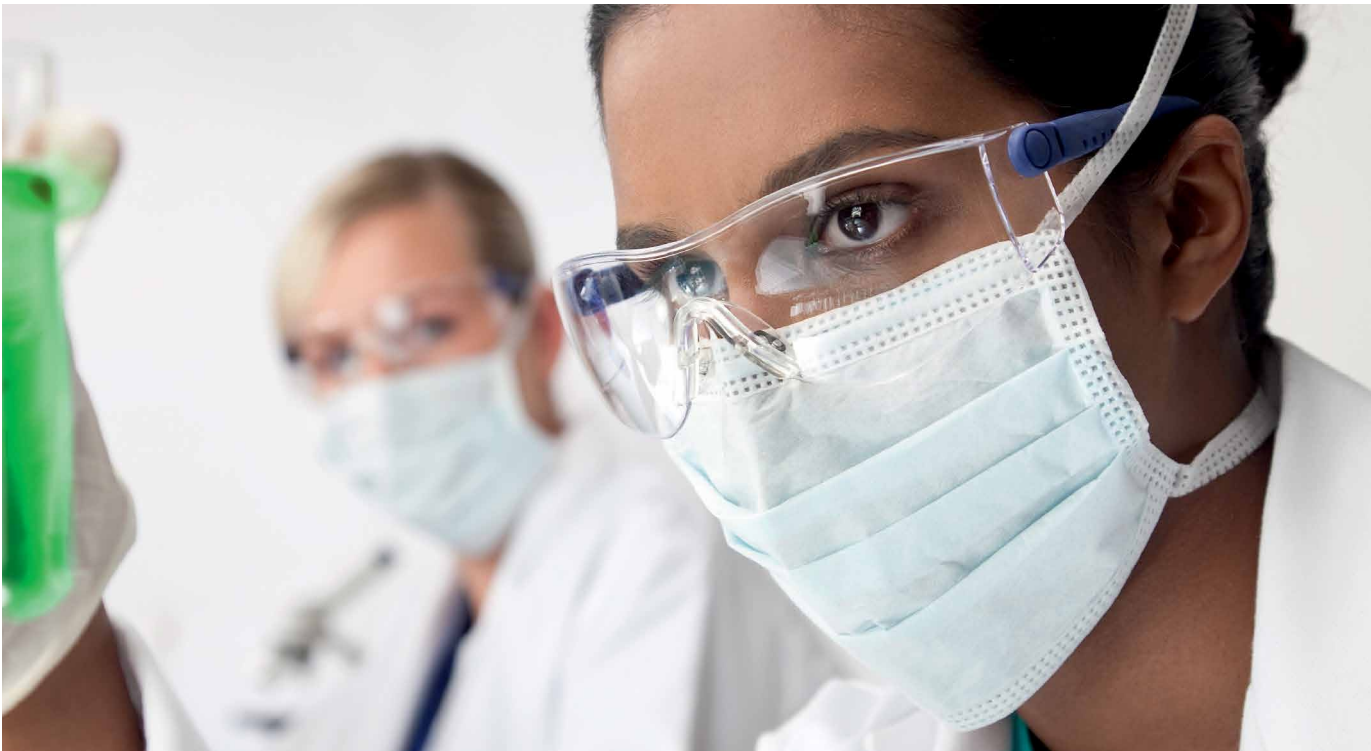
Type I bottles



C 1
C 2
C 3

SPECIFICATIONS

ref		I / II / III	ml	ml		mm	mm	mm	mm
B - 1280	○	I	10	13,20	18,50	52,50	25,40	25,40	13 SOC
B - 1170 Delta	○	I	10	15,50	25,50	58,00	26,00	26,00	22 PP
B - 1110	○	I	10	15,50	19,50	45,50	28,00	28,00	20 STD
B - 4071	○	I	50	60,00	51,00	73,00	42,50	42,50	20 EURO



Production in amber on request

Type I / Infusion bottles (Saline)

C1

C2

C3



Without Marking

SPECIFICATIONS



B - 4150	○	I	50	76,00	68,00	75,00	46,50	46,50	32 PN
B - 5080	○	I	100	135,00	98,00	103,50	51,50	51,50	32 PN

DIN

SPECIFICATIONS

B - 4131	○	I	50	68,00	62,00	68,00	46,00	46,00	32 DIN
B - 5161	○	I	100	125,00	98,00	104,25	49,00	49,00	32 DIN

Type I / Infusion bottles (Saline)



Plain Neck with Marking

- C 1
- C 2
- C 3

SPECIFICATIONS

									
B - 5032	○	I	100	135,00	98,00	103,50	51,50	51,50	32 PN
B - 5170	○	I	100	135,00	98,00	103,50	51,50	51,50	32 PN
B - 6191	○	I	200	240,00	180,00	137,00	60,50	60,50	32 PN/SPL
B - 6210	○	I	250	297,00	210,00	143,00	63,50	63,50	32 PN
B - 6152	○	I	500	615,00	385,00	177,00	81,50	81,50	33 PN

Type I / Infusion bottles (Saline)

- C1
- C2
- C3



Others

SPECIFICATIONS

ref		I / II / III	ml	ml		mm	mm	mm	mm
B - 5050	○	I	100	125,00	97,50	104,00	49,00	49,00	34 DIN
B - 5111	○	I	100	125,00	98,00	104,25	49,00	49,00	33 PN



Production in amber on request

Type III bottles



- C 1
- C 2
- C 3

Eros

SPECIFICATIONS

									
B - 1300	○	III	7,5	8,50	14,00	36,20	24,60	24,60	20 STD
B - 1230	○	III	10	13(Min)	19,50	51,00	24,60	24,60	20 STD
B - 2100 (R)	○	III	10	14,00	19,50	50,00	25,00	25,00	20 STD
B - 2100	○	III	15	17,00	22,50	57,50	25,50	25,50	20 STD

Atlas

SPECIFICATIONS

B - 1440	○	III	3	6,50	10,75	36,10	21,00	21,00	20 STD
B - 2060	○	III	20	26,75	29,00	57,50	32,00	32,00	20 STD

Type III bottles



Galaxy

SPECIFICATIONS



B - 1620	○	III	10	11,00	16,50	46,80	23,00	23,00	20 ISO
B - 2220	○	III	15	17,00	24,00	58,80	26,50	26,50	20 ISO
B - 3070	○	III	24	26,00	28,50	58,00	32,00	32,00	20 ISO

Others

SPECIFICATIONS

B - 1251 Regal	○	III	5	10,00	14,50	39,00	24,62	24,62	20 STD
B - 1351	○	III	7	8,75	13,50	40,70	22,00	22,00	20 EXP
B - 1320 Mars	○	III	7,5	10,00	18,50	46,75	23,00	23,00	20 EXP
B - 2090	○	III	20	28,50	29,00	69,50	29,50	29,50	20 STD



GERRESHEIMER



More information

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