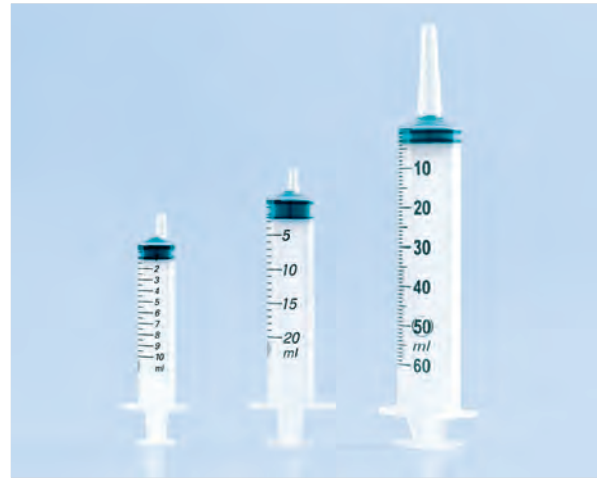


Bormed™ Solutions for
Bormed™ 解决方案

Healthcare Applications

医疗保健应用



The Bormed™ Concept



The Bormed Concept delivers:

- Consistency of formulation
- Continuity of supply for at least two years
 - Shelf life letters of up to three years
- Change control procedure
 - Bormed Directive: operating instructions for the development, production and delivery to the end customer of Bormed products
- Pharmacopeia compliance
 - External testing of Ph.Eur., USP, ISO10993; DMF listings
 - Extractable profiles
 - Microbiology

Bormed 理念传递了:

- 配方一致性
- 至少两年持续应用
 - 提供三年产品保质期的信件
- 变更控制程序
 - Bormed 指示: 产品开发、生产并交付给最终客户的操作说明
- 药典合规性
 - 欧洲药典、美国药典、ISO10993 的外部测试; DMF 列表
 - 可萃取物质资料
 - 微生物学

We understand that in the healthcare market, safety and efficiency of the product matters most, and thus you need the right partner to do business with in a reliable and meaningful way. We achieve this through our dedicated, constantly developing range of polyethylene and polypropylene grades, our global team and, critically, the Bormed concept. This is more than simply documentation and technical service, rather it is all encompassing – from product conception to production, procurement, support and distribution. It is based on the three core principles of service, commitment and conformance which cover the different aspects of active information management, change control and security of supply. Additionally, through our technical expertise and an ongoing, clear dialogue with our business partners, we remain at the forefront of healthcare trends and challenges allowing us to evolve our Bormed offering to the industry, providing tailored healthcare solutions for you. Because we care.

Commitment

Our commitment to and understanding of the healthcare market is tangible in everything we do. We provide security of supply, for the short and long term, with higher stock levels and planning prioritisation. We seek out cooperation with our business partners, the OEMs, converters and machinery suppliers. We believe in consistency – combined with step change innovation which we drive at our state of the art facility in Linz, Austria. Experience, technical expertise and a forward looking attitude make us the right partner for the healthcare market.

Service

It is important to have the right material and the right information at the right time in the right place. To achieve this, we steer information and notifications proactively, aiming to provide you with what you need to know, when you need it, in a concise and structured format. We lead open discussions with our business partners which enables us to remain at the forefront of industry trends and challenges. Through our dedicated global team of specialists, from R&D to technical support to sales and extensive dedicated distribution networks, we are able to provide fast and reliable delivery.

Conformance

Borealis' expertise results in a maintained consistency of the variables used to make polyolefins for the healthcare market – safeguarding continued regulatory compliance, be it the European or US Pharmacopeia, or ISO standards. Going beyond this, we have dedicated procedures in place to avoid uncontrolled changes and variations in quality. Our change control procedure ensures the highest quality standards. This goes hand in hand with enhanced operating instructions, which ensure that anyone involved in Bormed, knows Bormed – from product development to production, supply chain and support functions.

Bormed™ 理念

在医疗卫生市场中，产品的安全性和功效至关重要，因此必须与可靠的合作伙伴卓有成效地开展业务。北欧化工在 Bormed 理念的指导下，依靠全球团队的力量，不断开发各级各类聚乙烯和聚丙烯产品，成为客户的得力伙伴。Bormed 理念以服务、承诺及合规三大核心原则为基础，涵盖积极主动的信息管理、变更控制和供应的可靠性等诸多方面。贯彻 Bormed 理念并非简单地编制文档和提供技术服务，而是从产品设计到产品生产、原料采购、技术支持，再到产品经销，全面考虑，全程投入。我们凭借自身的技术专长以及与业务合作伙伴的顺畅沟通，时刻把握医疗卫生领域发展的最新趋势和面临的挑战，不断实现产品更新，为客户提供量身定制的医疗卫生解决方案。而这一切，都源自我们对客户的重视。

承诺

北欧化工方方面面均体现出对医疗卫生市场的承诺和了解。我们具备很高的库存水平和出色的规划能力，因此无论长期还是近短期，产品供应均稳定可靠。我们致力于同业务合作伙伴、OEM、转炉设备商及机械设备供应商合作，并在坚持品质始终如一的同时，通过在奥地利林茨的一流研发中心逐步推动产品创新。我们拥有的经验、技术专长和前瞻性态度使我们成为医疗卫生市场理想的合作伙伴。

服务

在恰当的时间，恰当的地点获得恰当的资料与信息至关重要。为此，我们积极开展信息和通知管理，以便随时以简洁和结构清晰的方式为您提供所需了解的信息。我们主动与业务合作伙伴坦诚交流，使自己时刻把握行业发展的最新趋势和面临的挑战。同时，我们还专门组建了一支由研发、技术支持和销售专家组成的全球团队，利用广泛的专门经销网络，为客户提供快捷可靠的服务。

合规

北欧化工拥有丰富的专业知识，因此在制造医疗卫生市场用聚烯烃过程中能够保持各变量的一致——保证始终符合监管规定，无论是欧洲药典标准的规定，美国药典标准的规定，还是 ISO 标准的规定。除此之外，我们还采用专门的流程，避免质量方面出现不可控的变更和变动。我们的变更控制流程确保产品与服务符合最高质量标准。而改进后的操作规程则确保参与 Bormed 的每一名员工对产品开发、生产、供应链和支持职能均了然于心。

Bormed™ products: dedicated polyolefins for healthcare applications

Bormed™ 产品：专用于医疗保健应用的聚烯烃

All figures are typical values – data should not be used for specification work
所有数字均为典型数值 - 不应将数据用作规格



PP 聚丙烯	Grade 产品名称	MFR 熔融指数 230°C / 2.16kg [g / 10min] ISO 1133	Flexural Modulus 弯曲模量 [MPa] ISO 178	Charpy notched impact 艾氏冲击强度 23°C [kJ / m²] ISO 179/1eA	Melting point 熔点 [°C] DSC	Special Features 特殊功能	European Pharmacopoeia 欧洲药典	United States Pharmacopoeia 美国药典	ISO 10993	DMF nr. DMF 编号	Extrusion Blow Moulding (EBM) 挤出吹塑	Injection / Injection Stretch Blow Moulding (IBM / ISBM) 注射吹塑	Injection Moulding (IM) 注塑	Film 薄膜	Typical Applications 应用
HOMOPOLYMERS 均聚物	DM55pharm	2.8	1,350	4.0	164		✓	✓	*	009146		•	●	Thermoforming film for tablets/pills blisters packaging. Capillary tubes for aerosols. 用于片剂/丸剂泡罩包装的热成型薄膜。气雾剂微量管。	
	HD800CF ¹	8	1,400	4.3	164		✓	✓	✓	020240		•	●	Packaging and secondary packaging for medical devices, closures, pouches for peritoneal dialysis, parenteral nutrition bags, IV solutions pouches. 医疗器械包装及二次包装。腹膜透析液袋、肠外营养液袋、静脉输液袋。	
	HD850MO ¹	8	1,850	5.5	162		✓	✓	✓	017929		●	•	Dosing units, Filter housings for Haemodialysis. Caps & Closures including aerosol. Pharmaceutical & diagnostic packaging in solid dose form or for oral and/or topical administration. 血液透析的剂量定量装置、滤器外壳。固体剂型或者口服和/或局部给药的药物和诊断产品包装。瓶盖。	
	HD810MO ²	10	1,250	4.5	164	Nu, Rad	*	✓	✓	009040		●	•	Disposable non pre-filled syringes and catheters. Blood collection system. Laboratory disposables. 一次性注射器和导管。血液采集系统。一次性实验室用品。	
	HF840MO ²	19	1,250	3.5	160	Slip	*	✓	✓	009040		●	•	Disposable syringe barrels. Needle cover. Catheter connections. Aerosol valves. Caps & Closures. 一次性注射器针筒。针套。导管接头。气雾剂阀。瓶盖。	
	HG820MO-11 ²	28	1,900	2.0	162	Nu	*	✓	✓	027799		●	•	Disposable non pre-filled syringes. Blood collection system. Laboratory disposables. 一次性注射器。血液采集系统。一次性实验室用品。	
	HJ875MO ²	75	1,600	1.8	160		✓	✓	✓	028620		●	•	Diagnostic products (Pipette tips, recipients for automatic analysis systems). Syringe plungers. Small pharma & diagnostic packages. 诊断产品 (移液器吸液头、自动分析系统接收装置)。注射器柱塞。小型药物和诊断产品包装。	
RANDOM COPOLYMER 无规共聚物	RB801CF-01 ¹	1.9	750	11.0	140		✓	✓	*	016484/028484	•	•	●	Medical packaging, tubings, primary & secondary pouches. Ampoules & small bottles for eye, ear & nose drops, droppers & injectable solution. 医药包装、套管、初级及二次包装袋。滴眼液、滴耳液、滴鼻液、滴管和注射溶液安瓿和小药瓶。吹灌封与注射吹塑成形 (一步工艺) 静脉输液瓶。	
	RD804CF ¹	8	1,000	4.8	151		✓	✓	*	024930/028486		•	●	Packaging and secondary packaging for medical devices. Pouches for peritoneal dialysis, parenteral nutrition bags. IV-solution pouches and bottles. Extension and connection tubings. Caps and closures. Ampoules/small bottles for eye, ear & nose drops. 医疗器械包装和二次包装。腹膜透析液袋、肠外营养液袋。静脉输液袋和瓶。延长管和连接管。瓶盖。滴眼液、滴耳液、滴鼻液安瓿/小药瓶。	
	RD808CF ¹	8	700	9.0	140		✓	✓	*	020244/028487		•	●	Pharmaceutical packaging and secondary packaging for medical devices. Pouches for peritoneal dialysis, parenteral nutrition bags. Bottles and Pouches for IV-solution. Ampoules/small bottles for eye, ear & nose drops. 医疗器械包装和二次包装。腹膜透析液袋、肠外营养液袋。静脉输液瓶。静脉输液袋。滴眼液、滴耳液、滴鼻液安瓿/小药瓶。	
	RD834CF ²	8	1,000	3.7	150	AB, Slip	✓	✓	*	**			●	Medical device packaging. Pouches for Continuous Ambulatory Peritoneal Dialysis. Pouches for IV solutions. Secondary packaging. Parenteral nutrition bags. 医疗器械包装。持续性非卧床腹膜透析液袋。静脉输液袋。二次包装。肠外营养液袋。	
	RE816CF ²	11	800	5.5	145	AB	✓	✓	*	028485			●	Medical device packaging and secondary packaging. Pouches for Continuous Ambulatory Peritoneal Dialysis. Parenteral nutrition bags. Pouches for IV-solution. 医疗器械包装和二次包装。持续性非卧床腹膜透析液袋。肠外营养液袋。静脉输液袋。	
	RE870MO ²	13	1,050	6.0	150		✓	✓	✓	031606		●	●	Bottles for IV-solution by ISBM (2 stage process). 注射吹塑成形 (二步工艺) 静脉输液瓶。	
	RF825MO ¹	20	1,100	6.0	150	Nu	*	✓	✓	012123/031607		●	•	Needle hubs. Blood collection systems. Catheter connections. Disposable non pre-filled syringes. Laboratory & Diagnostic disposable. 针头接口。血液采集系统。导管接头。一次性非预灌装注射器。实验室和诊断用一次性用品。	
	RF830MO ¹	20	1,100	6.0	150	Nu, Rad	*	✓	✓	012123/031609		●	•	Disposable non pre-filled syringes. Needle hubs. Catheter connections. Laboratory disposable. Diagnostic products. Blood collection tubes. 一次性注射器。针头接口。导管接头。实验室一次性用品。诊断产品。采血管。	
	RG835MO ¹	30	1,200	6.0	150	Nu, Slip	*	✓	✓	012123/031608		●	•	Needle protection. Disposable non pre-filled syringes. Caps and closures. 针头保护器。一次性注射器。瓶盖。	
	RJ880MO ¹	45	1,050	5.0	150	Nu, AS	*	✓	✓	027840		●	•	Diagnostic products (recipients for automatic analysis systems). Medical devices. Small pharma & diagnostic packages. 诊断产品 (自动分析系统接收装置)。医疗器械。小型药物和诊断产品包装。	
TERPOLYMER 三元共聚物	TD109CF	6	700	5.2	131		✓	✓	*	024931		•	●	Medical device packaging. Pouches for IV solutions. 医疗器械包装。静脉输液袋。	
RANDOM-HETEROPHASIC COPOLYMER / SOFT PP 无规多相共聚物 / 软聚丙烯	SB815MO	1.5	425	80.0	145		✓	✓	✓	027540	●	•	•	Bottles for IV-solutions and irrigation solutions. Ampoules for injectable solutions, eyes, ears & nose drops. 静脉输液瓶。滴眼液、滴耳液和滴鼻液安瓿。	
	SC820CF ¹	3.9	550	26.0	141		✓	✓	*	020243		•	●	Medical device packaging and secondary packaging. Pouches for Continuous Ambulatory Peritoneal Dialysis. Pouches for IV solutions. 医疗器械包装和二次包装。持续性非卧床腹膜透析液袋。静脉输液袋。	
	SC876CF	3.8	330	77	149		✓	✓	*	027916			●	Medical device packaging and secondary packaging. Soft PP used in core layer in 3 layer film, pouch for IV solution packaging. Pouches for Continuous Ambulatory Peritoneal Dialysis. 医疗器械包装和二次包装。用于三层薄膜中的核心层的软聚丙烯、静脉输液袋包装。持续性非卧床腹膜透析液袋。	

PE 聚乙烯	Grade 产品名称	MFR 熔融指数 190°C / 2.16kg [g / 10min] ISO 1133	Density 密度 [Kg / m³] ISO 1183	Flexural Modulus 弯曲模量 [MPa] ISO 178	Melting point 熔点 [°C] DSC	Special Features 特殊功能	European Pharmacopoeia 欧洲药典	United States Pharmacopoeia 美国药典	ISO 10993	DMF nr. DMF 编号	Extrusion Blow Moulding (EBM) 挤出吹塑	Injection / Injection Stretch Blow Moulding (IBM / ISBM) 注射吹塑	Injection Moulding (IM) 注塑	Film 薄膜	Typical Applications 应用
HDPE 高密度聚乙烯	HE2581-PH	0.3	958	1,250	131		✓	✓	✓	027656	●	●	•	Bottles and containers for tablets, powder and granules. IV-solution bottle. Bottles for irrigation solution. Containers for fine chemicals or APIs. 片剂、粉剂和颗粒剂瓶和容器。静脉输液瓶。灌洗液瓶。精细化学品或有效药物成分容器。	
	HE7541-PH	4	954	950	129		✓	✓	✓	027654			●	Containers for tablets, powder and granules. Caps and closures. Shoulders for tubes. 片剂、粉剂和颗粒剂容器。瓶盖。管肩。	
	HE9621-PH	12	962	1,300	133		✓	✓	✓	029149			●	Medical devices. Pharmaceutical packaging. Diagnostic products. Syringe plungers. 医疗器械。药品包装。诊断产品。注射器推筒。	
LDPE 低密度聚乙烯	LE6607-PH	0.3	927	290	114	No additives	✓	✓	*	008124/027108	●	•	•	Bottles for irrigation solutions. Bottles for IV-solutions. Ampoules for injectable solutions. 灌洗液瓶。静脉输液瓶。注射溶液安瓿。	
	LE6609-PH	0.3	930	330	117	No additives	✓	✓	*	017927	●	•	•	Bottles for irrigation solutions. Bottles for IV-solutions. Ampoules for injectable solutions. 灌洗液瓶。静脉输液瓶。注射溶液安瓿。	
	LE6600-PH	1.5	919	250	110	No additives	✓	✓	*	027587	●	•	•	Ampoules and mono-dose for eye, nose and ear-drops. Bottles for lens cleaning liquid. Small bottles for pharmaceutical & diagnostic packaging by IBM process. 滴眼液、滴耳液、滴鼻液的安瓿和单剂量瓶。镜片清洁液瓶。注射成型工艺药物和诊断产品小药瓶包装。	

PO 聚烯烃	Grade 产品名称	MFR 熔融指数 230°C / 2.16kg [g / 10min] ISO 1133	Density 密度 [Kg / m³] ISO 1183	Flexural Modulus 弯曲模量 [MPa] ISO 178	Melting point 熔点 [°C] DSC	Special Features 特殊功能	European Pharmacopoeia 欧洲药典	United States Pharmacopoeia 美国药典	ISO 10993	DMF nr. DMF 编号	Extrusion Blow Moulding (EBM) 挤出吹塑	Injection / Injection Stretch Blow Moulding (IBM / ISBM) 注射吹塑	Injection Moulding (IM) 注塑	Film 薄膜	Typical Applications 应用
PO SPECIALTY 聚烯烃特制品	WD170CF ^{1,*}	6.5	910	800	151		✓	✓	*	020242			•	●	Peelable film for Secondary packaging for medical product. 医疗产品二次包装的可剥离薄膜。
	WE150CF ^{1,*}	12.5	925	1,000	151	Slip, AB	*	✓	*				•	●	Peelable film for Secondary packaging for medical product. 医疗产品二次包装的可剥离薄膜。

Key 缩写

AB: Anti-block 防粘剂
Nu: Nucleation 成核剂
AS: Anti-static 防静电

Rad: Radiation package 耐辐照
Slip: Slip agent 增滑剂

✓ Grade has been tested. For detailed information, please refer to medical compliance statement on <http://www.borealisgroup.com/en/search/>
请参阅 <http://www.borealisgroup.com/en/search/> 上的医学合规声明

● Main application 主要应用
• Secondary application 次要应用

* Test not performed 未进行测试
** In preparation 正在编写

* WD170CF and WE150CF are not Bormed™ branded
WD170CF 和 WE150CF 不是 Bormed™ 产品

Borealis aims to produce all Bormed™ PP grades solely with non-phthalate based catalyst system.
北欧化工正为所有 Bormed™ 聚丙烯牌号切换使用非邻苯二甲酸酯基催化剂
¹ Currently also produced with non-phthalate based catalyst system 也使用非邻苯二甲酸酯基催化剂生产
² Only produced with non-phthalate based catalyst system 仅用非邻苯二甲酸酯基催化剂生产

Bormed™ Solutions for Healthcare Applications 医疗保健应用专 Bormed™ 解决方案

Borouge and Borealis – leading, innovative plastics providers Borouge 和 Borealis – 领先、创新的塑料供应商

Borouge and Borealis are leading providers of innovative plastics solutions that create value for society.

Building on their proprietary Borstar® and Borlink™ technologies and 50 years of experience in polyolefins, Borouge and Borealis support key industries including infrastructure, automotive and advanced packaging. Their manufacturing capacity reaches over 8 million tonnes of polyethylene and polypropylene per year.

Borouge, a joint venture between Abu Dhabi National Oil Company (ADNOC) and Borealis, employs approximately 3,000 people, has customers in more than 50 countries and its headquarters are in Abu Dhabi, UAE and Singapore. Together with Borealis, Borouge provides services and products to customers around the world.

Borealis is headquartered in Vienna, Austria, and operates in over 120 countries with around 6,500 employees worldwide.

Borouge and Borealis proactively benefit society by taking on today's challenges and are working to drive ideas forward. Both companies are committed to the principles of Responsible Care®, driving improved safety performance within the chemical industry and contributing to addressing the world's water and sanitation challenges through product innovation and their Water for the World™ programme.

For more information visit:

www.borouge.com
www.borealisgroup.com
www.waterfortheworld.net
www.borealisbecausewecare.com

博禄和北欧化工是创新塑料解决方案的领先供应商，致力于为社会创造价值。

凭借 Borstar® 和 Borlink™ 专有技术以及在聚烯烃领域 50 多年的丰富经验，博禄和北欧化工为基础设施、汽车和先进包装材料等重点行业提供支持。两家公司聚乙烯和聚丙烯的年生产能力达到 800 万吨。

博禄由阿布扎比国家石油公司 (ADNOC) 和北欧化工合资组建而成，拥有约 3,000 名员工，以阿联酋阿布扎比和新加坡为总部，服务于 50 多个国家的客户。博禄携手北欧化工为全球的客户提供服务和产品。

北欧化工总部位于奥地利的维也纳，全球约有 6,400 名员工，业务范围覆盖 120 多个国家。

博禄和北欧化工通过应对当今挑战的方式积极造福社会，推动思维向前发展。两家公司秉承责任关怀 (Responsible Care®) 原则，在化工行业倡导安全性能改善，并通过产品创新和世界水项目 (Water for the World™) 致力于解决全球的饮水和卫生问题。

欲了解更多信息，请访问：

www.borouge.com
www.borealisgroup.com
www.waterfortheworld.net
www.borealisbecausewecare.com

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