

## Technical Data

### Product Description

TOTAL Polypropylene  
Aceso® PPM R021

Polypropylene Aceso® PPM R021 is random copolymer polypropylene with a Melt Flow Index of 1.8 g/10 min specially developed for the extrusion blow-moulding of medical containers and medical devices, to the exclusion of implants. This grade can also be injection moulded.

Globalene® ST612 是一种聚丙烯材料。该产品在北美洲或亚太地区有供货,加工方式为:injection stretch blow molding 或吹塑成型。

Globalene®  
ST612

Globalene® ST612 的主要特性有:

- 耐冲击
- 透明度

典型应用领域包括:

- 瓶子
- 医疗/保健

Bormed™  
RB845MO

Bormed RB845MO is a resin intended for evaluation for use in Healthcare applications.

Bormed RB845MO is a random copolymer for use in blow moulding, including BFS technology, and ISBM ( 1-stage process) technologies. It can be used for ampoules and bottles up to maximum of 2 litres resulting in a good contact clarity, gloss and surface finish. The bottles can be steam sterilised at 121 °C. Material can also be sterilised with ethylene oxide.

Applications

Bormed RB845MO has been evaluated according to different regulations and norms. Typical applications are mentioned below for Medical devices or Pharmaceutical & Diagnostic packaging. However, Borealis should be consulted for final approval to evaluate the use of Bormed RB845MO .

- Ampoules/small bottles for eye, ear & nose drops
- Bottles for IV-solutions
- Bottles/ampoules for injectable solutions

This grade may only be used for the applications listed in the Product Datasheet and only to the extent that the application is within the scope of the tests set out in the Statement on Compliance to Regulations on Medical Use for that grade. If an application is not listed in the Product Datasheet, the grade can be used for such application only after express written consent of the Borealis Marketing Manager, Healthcare. Borealis prohibits the use of any healthcare grade product in an implantable device that is introduced into the human body by surgical intervention and that is intended to remain in place following surgical procedure.

Globalene®  
8191

Globalene® 8191 是一种聚丙烯材料。该产品在北美洲或亚太地区有供货,加工方式为:injection stretch blow molding、吹塑成型或片材挤出成型。

Globalene® 8191 的主要特性有:

- 耐冲击
- 透明度

典型应用领域包括:

- 薄板



• 瓶子

Purell  
RP271G

Low Melt Flow Polypropylene Random Copolymer Resin with High Clarity Dedicated for Medical Application in Particular IV Bottles Made by Extrusion Blow Molding Process (EBM)

Without exception, all potential activities for applications in the pharmaceutical, medical device, laboratory and diagnostics area have to be discussed with the relevant LyondellBasell Technical and Business contacts first.

General	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G
Manufacturer / Supplier	• TOTAL Refining & Chemicals	• Lee Chang Yung Chemical Industry Corp.	• Borealis AG	• Lee Chang Yung Chemical Industry Corp.	• LyondellBasell Industries
Generic Symbol	• PP 无规共聚物	• PP, 未指定	• PP 无规共聚物	• PP, 未指定	• PP 无规共聚物
Material Status	• 已商用：当前有效	• 已商用：当前有效	• 已商用：当前有效	• 已商用：当前有效	• 已商用：当前有效
资料 <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>	• <a href="#">Technical Datasheet (English)</a>	• <a href="#">Technical Datasheet (English)</a>	• <a href="#">Technical Datasheet (English)</a>	• <a href="#">Processing - Extrusion (English)</a> • <a href="#">Processing - Injection Molding (English)</a> • <a href="#">Processing - Mold Shrink (English)</a> • <a href="#">Technical Datasheet (English)</a>
搜索 UL 黄卡	• <a href="#">TOTAL Refining &amp; Chemicals</a>	• <a href="#">Lee Chang Yung Chemical Industry Corp.</a> • <a href="#">Globalene®</a>	• <a href="#">Borealis AG</a>	• <a href="#">Lee Chang Yung Chemical Industry Corp.</a> • <a href="#">Globalene®</a>	• <a href="#">LyondellBasell Industries</a>
Availability	• 欧洲	• 北美洲 • 亚太地区	• 北美洲 • 非洲和中东 • 拉丁美洲 • 欧洲 • 亚太地区	• 北美洲 • 亚太地区	• 非洲和中东 • 亚太地区
Features	• 无规共聚物	• 耐低温冲击 • 清晰度，高	• 环氧乙烷消毒 • 可回收材料 • 耐热性，高 • 清晰度，高 • 外观透明 • 无规共聚物 • 用蒸汽消毒 • 优良外观 • 中光泽	• Good Printability • 高抗撞击性 • 耐低温冲击 • 清晰度，高	• 良好的加工性能 • 良好抗撞击性 • 耐化学性良好 • 清晰度，高 • 无规共聚物
Uses	• 容器 • 医疗/护理用品 • 医疗器械	• 瓶子 • 医疗/护理用品	• 包装 • 瓶子 • 容器 • 药品包装	• Clear Sheet • 瓶子	• 薄膜 • 瓶子 • 消费品应用领域 • 药物 • 医疗/护理用品
Agency Ratings	• EC 1907/2006 (REACH) --		--	--	--



General	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G
RoHS Compliance	• RoHS 合规	--	--	--	--
Appearance	--	--	• 清晰/透明	--	--
Forms	• 粒子	• 粒子	• 粒子	• 粒子	• 粒子
Processing Method	• 挤出吹塑成型 • 注射成型	• Injection Stretch Blow Molding • 吹塑成型	• 吹塑成型 • 挤出	• Injection Stretch Blow Molding • 吹塑成型 • 片材挤出成型	• 挤出 • 挤出吹塑成型 • 注射成型

Physical	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Density / Specific Gravity	--	0.897	--	0.896	0.900	g/cm³	ASTM D792
	0.902	--	0.902	--	--	g/cm³	ISO 1183
Apparent (Bulk) Density	0.53	--	--	--	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)							
230°C/2.16 kg	--	1.8	--	2.2	1.7	g/10 min	ASTM D1238
230°C/2.16 kg	1.8	--	1.9	--	--	g/10 min	ISO 1133
Molding Shrinkage - 流动	--	1.4	--	1.7	--	%	ASTM D955

Mechanical	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Tensile Modulus							
--	1000	--	--	--	--	MPa	ISO 527-2
--	--	--	1000	--	--	MPa	ISO 527-2/1
Tensile Strength							
屈服	--	27.5	--	27.5	26.0	MPa	ASTM D638
屈服	26.0	--	--	--	--	MPa	ISO 527-2
屈服	--	--	26.0	--	--	MPa	ISO 527-2/50
Tensile Elongation							
屈服	--	13	--	14	14	%	ASTM D638
屈服	10	--	--	--	--	%	ISO 527-2
屈服	--	--	13	--	--	%	ISO 527-2/50
断裂	--	630	--	600	--	%	ASTM D638



Mechanical	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Flexural Modulus							
--	--	951	--	951	--	MPa	ASTM D790
--	--	--	--	--	900	MPa	ASTM D790A
--	900	--	1100	--	--	MPa	ISO 178
Impact	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Charpy Notched Impact Strength							
23°C	8.0	--	--	--	--	kJ/m²	ISO 179
23°C	--	--	7.0	--	--	kJ/m²	ISO 179/1eA
Notched Izod Impact							
23°C	--	65	--	440	--	J/m	ASTM D256
23°C	--	--	--	--	80	J/m	ASTM D256A
23°C	6.0	--	--	--	--	kJ/m²	ISO 180
Hardness	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Rockwell Hardness							
R 级	--	77	--	76	--		ASTM D785
R 计秤	82	--	--	--	--		ISO 2039-2
Thermal	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Deflection Temperature Under Load							
0.45 MPa, 未退火	--	--	--	--	88.0	°C	ASTM D648
0.45 MPa, 未退火	--	--	83.0	--	--	°C	ISO 75-2/B
Vicat Softening Temperature							
--	130	--	--	--	--	°C	ISO 306/A50
--	67.0	--	--	--	--	°C	ISO 306/B50
Melting Temperature (DSC)	149	--	--	--	--	°C	ISO 3146
Additional Information	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制	测试方法
Heat Deflection Temperature	--	81	--	73	--	°C	ASTM D648



Extrusion	TOTAL Polypropylene Aceso® PPM R021	Globalene® ST612	Bormed™ RB845MO	Globalene® 8191	Purell RP271G	单位制
Cylinder Zone 1 Temp.	--	--	190 到 220	--	--	°C
Cylinder Zone 2 Temp.	--	--	190 到 220	--	--	°C
Cylinder Zone 3 Temp.	--	--	190 到 220	--	--	°C
Cylinder Zone 4 Temp.	--	--	190 到 220	--	--	°C
Cylinder Zone 5 Temp.	--	--	190 到 220	--	--	°C
Melt Temperature	--	--	180 到 220	--	--	°C
Die Temperature	--	--	180 到 220	--	--	°C

**备注**

<sup>1</sup> 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

<sup>2</sup> 一般属性：这些不能被视为规格。



购买地点

供应商	
TOTAL Polypropylene Aceso® PPM R021	<b>TOTAL Refining &amp; Chemicals</b> Houston, TX USA 电话: 713-483-5000 Web: <a href="http://www.totalrefiningchemicals.com/">http://www.totalrefiningchemicals.com/</a>
Globalene® ST612	<b>Lee Chang Yung Chemical Industry Corp.</b> Taipei, Taiwan 电话: +886-2-2528-8895 Web: <a href="http://www.lcygroup.com">http://www.lcygroup.com</a>
Borned™ RB845MO	<b>Borealis AG</b> Vienna, Austria 电话: +43-122-400-302 Web: <a href="http://www.borealisgroup.com/">http://www.borealisgroup.com/</a>
Globalene® 8191	<b>Lee Chang Yung Chemical Industry Corp.</b> Taipei, Taiwan 电话: +886-2-2528-8895 Web: <a href="http://www.lcygroup.com">http://www.lcygroup.com</a>
Purell RP271G	<b>LyondellBasell Industries</b> Wilmington, DE USA 电话: 713-309-7200 Web: <a href="http://polymers.lyondellbasell.com/portal/site/basell/">http://polymers.lyondellbasell.com/portal/site/basell/</a>



## 分销商

TOTAL Polypropylene Aceso® PPM R021	<p><b>Plastribution</b>  电话: +44-845-345-4560  Web: <a href="http://www.plastribution.co.uk/">http://www.plastribution.co.uk/</a>  供货地区: United Kingdom</p> <p><b>RESINEX Group</b>  <i>RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.</i>  电话: +32-14-672511  Web: <a href="http://www.resinex.com/">http://www.resinex.com/</a>  供货地区: Europe</p> <p><b>Telko Oy</b>  <i>Telko Oy is a Pan European distribution company. Contact Telko Oy for availability of individual products by country.</i>  电话: +358-9-5211  Web: <a href="http://www.telko.com/">http://www.telko.com/</a>  供货地区: Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Russian Federation, Sweden</p> <p><b>TER HELL PLASTIC GMBH</b>  <i>TER HELL PLASTIC is a Pan European distribution company. Contact TER HELL PLASTIC for availability of individual products by country.</i>  电话: +49-232-3941-0  Web: <a href="http://www.terhell.de/">http://www.terhell.de/</a>  供货地区: France, Germany, Poland, Spain</p>
Globalene® ST612	请联系供应商以便为 Globalene® ST612 查找分销商
Bormed™ RB845MO	<p><b>Nexeo Solutions</b>  电话: 800-531-7106  Web: <a href="http://www.nexeosolutions.com/">http://www.nexeosolutions.com/</a>  供货地区: North America</p> <p><b>Nexeo Solutions - Europe</b>  <i>Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.</i>  电话: +34-93-480-9125  Web: <a href="http://www.nexeosolutions.com/">http://www.nexeosolutions.com/</a>  供货地区: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, United Kingdom</p>
Globalene® 8191	请联系供应商以便为 Globalene® 8191 查找分销商
Purell RP271G	<p><b>ALBIS Plastic</b>  <i>ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.</i>  电话: +49-40-78105-0  Web: <a href="http://www.albis.com/">http://www.albis.com/</a>  供货地区: Algeria, Austria, Belgium, Bulgaria, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Norway, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom</p>

