

Technical Data

产品说明

TOTAL Polypropylene
Lumicene® MR 30MC2

Lumicene® MR30MC2 is a metallocene random copolymer with a Melt Flow Index of 30 g/10 min for injection moulding. Lumicene® MR30MC2 differs from the other random copolymers by its moulding reproducibility, outstanding organoleptic properties combined with low extractables, excellent transparency and gloss.

Producers of rigid food packaging, caps and closures, medical device and packaging, houseware and kitchenware will take full advantage of the new Lumicene® random metallocene product range.

We hereby confirm that we do not use peroxide in the manufacturing of the above-mentioned Product.

Polypropylene random copolymer.

Titanpro SM598 is a clarified grade designed for high transparency articles.

The base resin meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520(a)(3)(i) and (c)3.1a.

The adjuvant meet their respective FDA regulations and 21 CFR 177.1520(b). In summary, this resin meets the FDA criteria covering safe use of polyolefin articles and component of articles intended for food contact use.

TSCA Registry: CAS# 9010-79-1

TITANPRO®
SM598

APPLICATIONS

DVD casing, high transparency thin walled containers, storage containers.

ADVANTAGES

Excellent clarity. Good surface finish and color.

Cycle time reduction with low processing melt temperature.

Utilities cost saving.

Good dimensional stability.

Good balance of rigidity and impact resistance.

FABRICATION

Equipment - injection molding machine.

Techniques - standard processing.

Bormed™
RG835MO

Bormed RG835MO is a resin intended for evaluation for use in Healthcare applications.

Bormed RG835MO is a transparent polypropylene random copolymer with a high melt flow, modified with slip agent for products requiring a low surface friction. This grade is characterized by easy processability, high transparency, high gloss, controlled low friction and good stiffness-impact balance at ambient temperature. In addition it can be sterilized with ethylene oxide and steam.

Applications

Bormed RG835MO 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 RG835MO .

- Needle hubs
- Needle protection



- Disposable non pre-filled syringes
- Caps and closures

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.

Special Features

- Improved gloss
- High transparency
- Easy processability

TAIRIPRO® K4535	Injection Molding				
	CHARACTERISTICS: High fluidity, High clarity, Anti-static, Good resistance to chemical				
RANPELEN J-570S	J-570S is a nucleated random copolymer for injection molding applications. This grade is designed to be processed in conventional injection molding equipment and offers high transparency, good stiffness/impact strength balance, high gloss, good flow and low smell.				
总体	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S
生产商/供应商	• TOTAL Refining & Chemicals	• Lotte Chemical Titan (M) Sdn. Bhd.	• Borealis AG	• Formosa Chemicals & Fibre Corporation	• Lotte Chemical Corporation
通用符号	• PP 无规共聚物	• PP 无规共聚物	• PP 无规共聚物	• PP 无规共聚物	• PP 无规共聚物
材料状态	• 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 ¹	• Technical Datasheet (English)	• Technical Datasheet (English)	• Technical Datasheet (English)	• Processing (English) • Technical Datasheet (English)	• Technical Datasheet (English)
UL 黄卡 ²	--	--	--	• E162823-460054	--
搜索 UL 黄卡	• TOTAL Refining & Chemicals	• Lotte Chemical Titan (M) Sdn. Bhd.	• Borealis AG	• Formosa Chemicals & Fibre Corporation • TAIRIPRO®	• Lotte Chemical Corporation
供货地区	• 欧洲	• 北美洲	• 北美洲 • 非洲和中东 • 拉丁美洲 • 欧洲 • 亚太地区	• 北美洲 • 欧洲 • 亚太地区	• 北美洲 • 欧洲 • 亚太地区
添加剂	--	--	• 润滑剂	--	• 成核剂



总体	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S
特性	<ul style="list-style-type: none"> 低萃取物 高光 良好的感官特征 清晰度, 高 无规共聚物 	<ul style="list-style-type: none"> 尺寸稳定性良好 刚性, 高 抗撞击性, 良好 快的成型周期 清晰度, 高 食品接触的合规性 无规共聚物 优良外观 	<ul style="list-style-type: none"> 低摩擦系数 刚性, 良好 高光 环氧乙烷消毒 极佳的可印刷性 抗撞击性, 良好 可回收材料 可加工性, 良好 流动性高 耐化学性良好 清晰度, 高 润滑 脱模性能良好 无规共聚物 用蒸汽消毒 	<ul style="list-style-type: none"> 抗静电性 流动性高 耐化学性良好 清晰度, 高 无规共聚物 	<ul style="list-style-type: none"> 成核的 刚性, 良好 高光 抗撞击性, 良好 良好的流动性 气味低到无 清晰度, 高 无规共聚物
用途	<ul style="list-style-type: none"> Rigid Food Packaging 厨具 护罩 家用货品 外壳 医疗器械 医用包装 	<ul style="list-style-type: none"> 薄壁容器 媒介包装 容器 	<ul style="list-style-type: none"> 管件 护罩 皮下注射器零件 外壳 医疗/护理用品 	--	<ul style="list-style-type: none"> 薄壁部件 媒介包装 容器 文具
机构评级	<ul style="list-style-type: none"> EC 1907/2006 (REACH) 	<ul style="list-style-type: none"> FDA 21 CFR 177.1520(a) 3 (i) FDA 21 CFR 177.1520(b) FDA 21 CFR 177.1520(c) 3.1a TSCA Listed on Inventory³ 	--	<ul style="list-style-type: none"> EC 1907/2006 (REACH) FDA 21 CFR 177.1520(c) 3.1a 	--
RoHS 合规性	<ul style="list-style-type: none"> RoHS 合规 	--	--	<ul style="list-style-type: none"> RoHS 合规 	<ul style="list-style-type: none"> RoHS 合规
UL 文件号	--	--	--	<ul style="list-style-type: none"> E162823 	--
外观	<ul style="list-style-type: none"> 清晰/透明 	--	<ul style="list-style-type: none"> 清晰/透明 	--	--
形式	<ul style="list-style-type: none"> 粒子 	--	<ul style="list-style-type: none"> 粒子 	--	--
加工方法	<ul style="list-style-type: none"> 注射成型 	<ul style="list-style-type: none"> 注射成型 	<ul style="list-style-type: none"> 注射成型 	<ul style="list-style-type: none"> 注射成型 	<ul style="list-style-type: none"> 注射成型



物理性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
密度 / 比重	--	--	--	0.898	0.900	g/cm³	ASTM D792
--	0.902	--	0.905	--	0.900	g/cm³	ISO 1183
--	--	0.900	--	--	--	g/cm³	ASTM D1505
表观密度	0.53	--	--	--	--	g/cm³	ISO 1183
熔流率 (熔体流动速率)							
230°C/2.16 kg	--	30	--	35	28	g/10 min	ASTM D1238
230°C/2.16 kg	30	--	30	--	28	g/10 min	ISO 1133
收缩率							
流动	--	1.3 到 1.4	--	--	--	%	
流动 : 23°C	--	--	--	1.5 到 2.0	--	%	内部方法
--	--	--	1.0 到 2.0	--	--	%	
吸水率 (24 hr)	--	0.020	--	--	--	%	ASTM D570
机械性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
拉伸模量							
--	1300	--	--	--	--	MPa	ISO 527-2
--	--	--	1200	--	--	MPa	ISO 527-2/1
抗张强度							
屈服	--	29.4	--	--	29.4	MPa	ASTM D638
屈服, 23°C	--	--	--	30.0	--	MPa	ASTM D638
屈服	31.0	--	--	--	26.5	MPa	ISO 527-2
屈服	--	--	27.5	--	--	MPa	ISO 527-2/50
伸长率							
屈服	--	12	--	--	--	%	ASTM D638
屈服	10	--	--	--	--	%	ISO 527-2
屈服	--	--	12	--	--	%	ISO 527-2/50
断裂	--	--	--	--	> 100	%	ASTM D638 ISO 527-2
断裂, 23°C	--	--	--	> 200	--	%	ASTM D638



机械性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
弯曲模量							
--	--	--	--	--	1180	MPa	ASTM D790
--	--	1180	--	--	--	MPa	ASTM D790B
23°C	--	--	--	1130	--	MPa	ASTM D790A
--	1250	--	1200	--	971	MPa	ISO 178
冲击性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
简支梁缺口冲击强度 (23°C)	--	--	6.0	--	--	kJ/m²	ISO 179/1eA
悬臂梁缺口冲击强度							
-10°C	--	--	--	--	29	J/m	ASTM D256
-10°C	--	--	--	--	25	J/m	ISO 180
23°C	--	--	--	--	44	J/m	ASTM D256
23°C	--	--	--	--	39	J/m	ISO 180
23°C	--	49	--	--	--	J/m	ASTM D256A
23°C, 3.18 mm	--	--	--	49	--	J/m	ASTM D256
23°C	5.0	--	--	--	--	kJ/m²	ISO 180
硬度	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
洛氏硬度							ASTM D785
R 级, 23°C	--	--	--	95	--		
R 级	--	96	--	--	95		
热性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
载荷下热变形温度							
0.45 MPa, 未退火	--	88.0	--	--	95.0	°C	ASTM D648
0.45 MPa, 未退火 ⁵	--	--	82.0	--	--	°C	ISO 75-2/B
0.45 MPa, 未退火	--	--	--	--	85.0	°C	ISO 75-2/B
1.8 MPa, 未退火, 6.35 mm	--	--	--	95.0	--	°C	ASTM D648
熔融温度 (DSC)	140	--	--	--	--	°C	ISO 3146



可燃性	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
UL 阻燃等级	--	--	--	HB	--		UL 94
光学性能	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	测试方法
雾度	--	--	--	--	25	%	ASTM D1003
注射	TOTAL Polypropylene Lumicene® MR 30MC2	TITANPRO® SM598	Bormed™ RG835MO	TAIRIPRO® K4535	RANPELEN J-570S	单位制	
加工 (熔体) 温度	--	--	220 到 250	220 到 240	--	°C	
模具温度	--	--	30 到 40	30 到 50	--	°C	
注塑压力	--	--	--	3.92 到 8.83	--	MPa	
注射速度	--	--	中等偏快	--	--		
保压	--	--	20.0 到 50.0	--	--	MPa	

备注

- ¹ 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。
- ² UL 黄卡含有 UL 验证的易燃性和电气特性。UL Prospector 持续努力在 Prospector 中将黄卡链接至单个塑料材料，然而此列表可能未包括所有相应链接。重要的是，我们对 Prospector 中找到的这些黄卡和塑料材料之间的关联进行验证。如需完整的黄卡列表，请访问 UL 黄卡搜索。
- ³ CAS# 9010-79-1
- ⁴ 一般属性：这些不能被视为规格。
- ⁵ Injection molded specimen



购买地点

供应商	
TOTAL Polypropylene Lumicene® MR 30MC2	TOTAL Refining & Chemicals Houston, TX USA 电话: 713-483-5000 Web: http://www.totalrefiningchemicals.com/
TITANPRO® SM598	Lotte Chemical Titan (M) Sdn. Bhd. Kuala Lumpur, Malaysia 电话: +60-3-2093-4222 Web: http://www.titangroup.com/
Borned™ RG835MO	Borealis AG Vienna, Austria 电话: +43-122-400-302 Web: http://www.borealisgroup.com/
TAIRIPRO® K4535	Formosa Chemicals & Fibre Corporation Taipei, Taiwan 电话: +886-2-2712-2211 Web: http://en.fcfc-plastics.com/
RANPELEN J-570S	Lotte Chemical Corporation Seoul, South Korea 电话: +82-2-829-4114 Web: http://english.lottechem.com/



分销商

TOTAL Polypropylene Lumicene® MR
30MC2**Plastrubution**电话: +44-845-345-4560
Web: <http://www.plastrubution.co.uk/>
供货地区: United Kingdom**RESINEX Group***RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.*电话: +32-14-672511
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Web: <http://www.terhell.de/>
供货地区: France, Germany, Poland, Spain

TITANPRO® SM598

请联系供应商以便为 TITANPRO® SM598 查找分销商

Bormed™ RG835MO

Biesterfeld Plastic GmbH*Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.*电话: +49-40-32008-0
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TAIRIPRO® K4535

Click Plastics AG*Click Plastics AG is a Pan European distribution company. Contact Click Plastics for availability of individual products by country.*电话: +49-6251-770-690-0
Web: <http://www.clickplastics.com>
供货地区: Germany

Osterman & Company

电话: 800-914-4437
Web: <http://www.osterman-co.com/>
供货地区: North America

PolySource

电话: 866-558-5300
Web: <http://www.polysource.net/>
供货地区: North America

Resinal de México

电话: +52-55-5254-7600
Web: <http://resinal.mx/>
供货地区: Mexico

RANPELEN J-570S

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