

循环再生聚丙烯 (rPP)



随着可持续发展目标的不断推进,全球主要经济体及相关行业纷纷掀起减碳热潮。

万华化学大力布局低碳环保产品链,推出 WANCOM®rPP 系列,实现 PP 材料再生和循环经济,打造高品质的“消费后回收再生(PCR)”聚丙烯解决方案,助力可持续发展目标。

万华化学作为具有全产业链优势的聚丙烯生产商,联合价值链合作伙伴,实现新料生产—汽车/家电加工—消费后回收—破碎、清洗、造粒再生全流程协作,开启聚丙烯的循环再生之旅。



GRS 认证证书首页

- 循环利用,延长产品生命周期
- 建立质量管理体系,全回收链条可追溯
- 上下游一体化,产品质量及供应稳定可控
- 已通过 GRS 认证

与非再生 PP 材料相比,产品中添加 30% 的 PCR 材料时,可降低约 20% 的 CO2 排放。另外,材料还凭借低密度、高抗冲等优异性能,更好地满足客户的定制化需求。

低密度保险杠 rPP 改性材料应用表现

检测项目	测试方法	单位	PPT1203E	PPT1203E R30 (含 30%PCR)
密度	ISO 1183	g/cm ³	0.97	0.97
熔融指数	ISO 1133 230°C, 2.16kg	g/10min	18	18
拉伸强度	ISO 527	MPa	18	18
弯曲强度	ISO 178	MPa	22	22
弯曲模量 23°C	ISO 178	MPa	1200	1100
缺口冲击强度	ISO 180	KJ/m ²	50	42
收缩率	WANHUA	%	0.7	0.7

- ✓ 裁样力学性能相当
- ✓ 收缩率表现一致
- ✓ 热老化性能相同
- ✓ 油漆附着力优异

万华化学集团股份有限公司 新材料事业部

地址: 山东省烟台市开发区三亚路 3 号

邮箱: polymer@whchem.com

电话: 400-960-0309 转 6

网址: www.whchem.com



本资料所给出的指标、数据乃基于我们现有的技术知识水平和实践经验,仅供参考。具体保证指标以质量保证书或供货合同规定为准。用户对于所购买我司的产品有责任进行试验,以验证是否适合各自所拟定的工艺和用途,并达到预定的目的。对我司产品的进一步应用和加工均非我司所能控制,因此,我们对所提供的产品的责任范围仅限于我方交付且为贵方所使用的部分。而不承担在采用我公司产品为原料进行生产过程中而造成的间接损失。我司市场技术支持与客户服务中心愿为您提供有关产品的咨询与应用技术服务,欢迎来函来电联系。

Recycled Polypropylene (rPP)



The major economies and relevant industries have lifted a wave of carbon reduction across the world with the continuous advancement of the sustainable development goal.

Wanhua Chemical vigorously lays out a low-carbon environmental protection product chain and launches WANCOM® rPP product series, achieves the regeneration of PP materials and circular economy, creates high-quality "post-consumer recycling (PCR)" polypropylene solution, and assist the sustainable development goal.

Wanhua Chemical working as a PP producer with the advantages of the whole industry chain, cooperates with the value chain partners to achieve the entire process of new material production, car/housing application processing, post-consumption recycling, crushing, cleaning, granulation and regeneration, starting to open the cycle and regeneration journey of PP products.



Scope Certificate
Scope Certificate Number ITS-W09805-GRS-01090300

Intertek
certifies that

Wanhua Chemical Group Co., Ltd. (Performance Materials Business Unit & Performance Polymers Business Unit)
License Number W09805
59 Chongqing Street, Economic and Technological Development Zone,
Yantai City, 265505,
Shandong Province, China.

has been audited and found to be in conformity with the
GLOBAL RECYCLED STANDARD 4.0 (GRS 4.0)

Product categories mentioned below (and further specified in the product appendix) conform with the standard(s):
Processed post-consumer materials (PC0035)
Process categories carried out under responsibility of the above mentioned organization for the certified products cover:
Dyeing (PR0008); Extrusion (PR0010); Warehousing (PR0031)
*The processes marked with an asterisk may be carried out by subcontractors

This certificate is valid until: 2023-11-18
Audit criteria:
Place and Date of Issue
Lowell, MA, USA, 2022-11-25
Last Updated: 2022-11-25


Colin Moldovan
President, Business Assurance

Certification Body Licensed by: Textile Exchange; Licensing Code: CB-ITS
Certification Body Accredited by: ANAB; Accreditation Number: 0204
Inspection Body: Intertek Testing Services Ltd., Shanghai
Auditor(s): N/A

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Page 1 of 8



Home Page of GRS Certificate

- Recycling to extend the product life cycle
- Establish a quality management system, the complete recycling chain can be traced
- Upstream and downstream integration, the product quality and supply are stable and controllable
- Certified by GRS

The addition of 30% of PCR materials to the product can reduce about 20% CO2 emissions compared with non-renewable PP materials. Simultaneously, the material also relies on low density, high impact resistance and other properties to better satisfy the customized requirements of clients.

Performance of Modified rPP for Low Density Bumper

Testing Items	Method	Unit	PPT1203E	PPT1203E R30 (30% PCR Content)
Density	ISO 1183	g/cm3	0.97	0.97
Melt Flow Rate	ISO 1133 230°C, 2.16kg	g/10min	18	18
Tensile Strength	ISO 527	MPa	18	18
Flexural Strength	ISO 178	MPa	22	22
Flexural Modulus	ISO 178	MPa	1200	1100
Izod Notched Impact Strength (23°C)	ISO 180	KJ/m2	50	42
Shrinkage	WANHUA	%	0.7	0.7

- ✓ **Equivalent mechanical properties**
- ✓ **Consistent shrinkage**
- ✓ **Same thermal aging performance**
- ✓ **Excellent paint adhesion**

Wanhua Chemical Group Co.,Ltd. Performance Polymers Business Unit

Add: No.3, Sanya Road, Yantai, Shandong Province, P.R.China
E-mail: polymer@whchem.com

Tel: 400-960-0309 transfer to 6
Web: en.whchem.com



The information provided here is for reference only, and the specification will be provided in the sales contract. It is the user's responsibility to test the material and its suitability for the processing. It is out of company's control of various factors of the processing and applications of our product, and we can not take any responsibility for another party's action, nor will we be responsible for any indirect damages while using our products. The user is welcome to contact our customer service center with questions on our products.