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PC engineering plastics grade TiO_2

聚碳酸酯工程塑料级钛白粉

DR-2688

Excellent polycarbonate degradation resistance
优异的抗聚碳酸酯降解能力

Outstanding polycarbonate yellowing resistance
优异的抗聚碳酸酯黄变能力

Excellent processability
优异的加工流动性

Super bluish undertone and high tinting strength
超级蓝底相和高消色力

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Joint manufacture

INTRODUCTION 产品介绍

DR-2688 is specially designed plastic rutile grade TiO₂ for polycarbonate. The special inorganic and organic surface treatments effectively solve the problems such as viscosity and brightness reduction, yellowing of color, and material embrittlement during processing of polymers like polycarbonate. It ensures the optical and mechanical properties of engineering plastics such as polycarbonate, and exhibits excellent resistance to degradation and yellowing in polycarbonate.

DR-2688是一种专为聚碳酸酯(PC)体系生产而设计的金红石型二氧化钛颜料,采用特殊的无机和有机表面处理工艺,有效解决了聚碳酸酯等聚合物加工过程中粘度和亮度降低、色相黄变、材料脆化等问题,能确保聚碳酸酯等工程塑料的光学、力学等性能,具有优异的聚碳酸酯体系抗降解、抗黄变性能。

SPECIAL FEATURES 产品特性

- Excellent polycarbonate degradation resistance
- Outstanding polycarbonate yellowing resistance
- Excellent processability
- Super bluish undertone and high tinting strength

- 优异的抗聚碳酸酯降解能力
- 优异的抗聚碳酸酯黄变能力
- 优异的加工流动性
- 超级蓝底相和高消色力

TYPICAL APPLICATIONS 典型应用

DR-2688 is recommended for polycarbonate and other engineering plastics, such as:
DR-2688推荐应用于聚碳酸酯等工程塑料体系,如:

- PC polymers, PC blends, PC alloys, etc
- ABS, PET, PA engineering plastics
- Polyolefin masterbatch and its co-polymers, etc.
- 纯PC料、PC混合料、PC合金等
- ABS、PET、PA等工程塑料体系
- 聚烯烃色母及其共聚物等领域

TYPICAL VALUE 产品典型技术指标

Property/参数	Typical value/典型值	
TiO ₂ content, % TiO ₂ 含量, %	96.0	
Inorganic treatment 无机表面处理物	Al ₂ O ₃ ·nH ₂ O	
Organic treatment 有机表面处理物	Organic silicon 有机硅	
Oil absorption, g/100g pigment 吸油量, g/100g颜料	13	
Loss at 105 °C, % 105°C挥发物, %	0.2	
¹ Color in PC injection 在PC注塑板中的颜色	L*	97.5
	b*	1.1
² Undertone in grey PVC-P 在灰色PVC-P中的着色底相 (CBU)	16.5	
³ Melt flow rate (MFR), g/10min 熔体质量流动速率 (MFR), g/10min	10.0	
Specific gravity, g/cm ³ 真密度, g/cm ³	4.0	
International Standard Classification ISO 591 国际标准ISO591分类	R2	
USA MRS Standard Classification ASTM D476 美国材料试验学会ASTM D476分类	II	

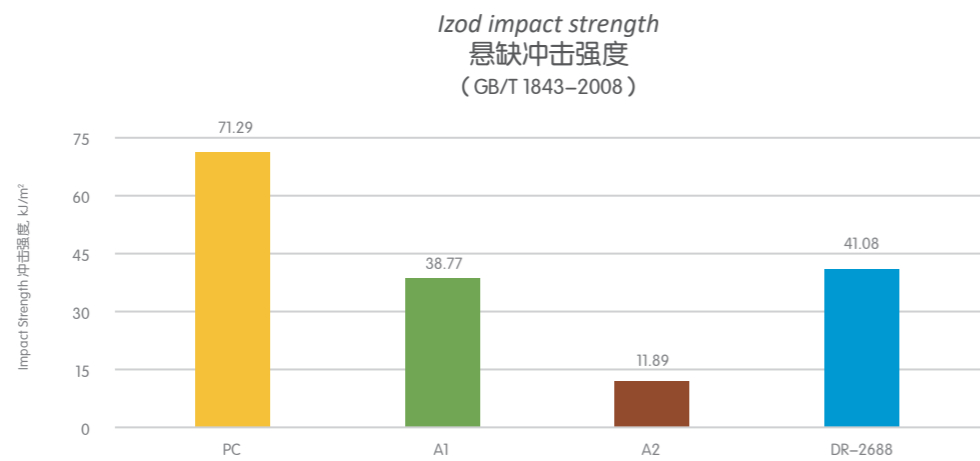
NOTE/注:

1. Test in PC injection panels. TiO₂ content is 30% (wt%).
2. Test in PVC-P containing plasticizer and carbon black. TiO₂ content is 4PHR.
3. Test in PC (MFR: 10.0g/10min) masterbatch. TiO₂ content is 30% (wt%).
1. 在钛白粉含量为30%的聚碳酸酯注塑板中测试
2. 在钛白粉含量为4PHR的含增塑剂和炭黑的聚氯乙烯体系(PVC-P)中测试
3. 在钛白粉含量为30%的聚碳酸酯(熔融指数为10.0g/10min)色母粒中测试

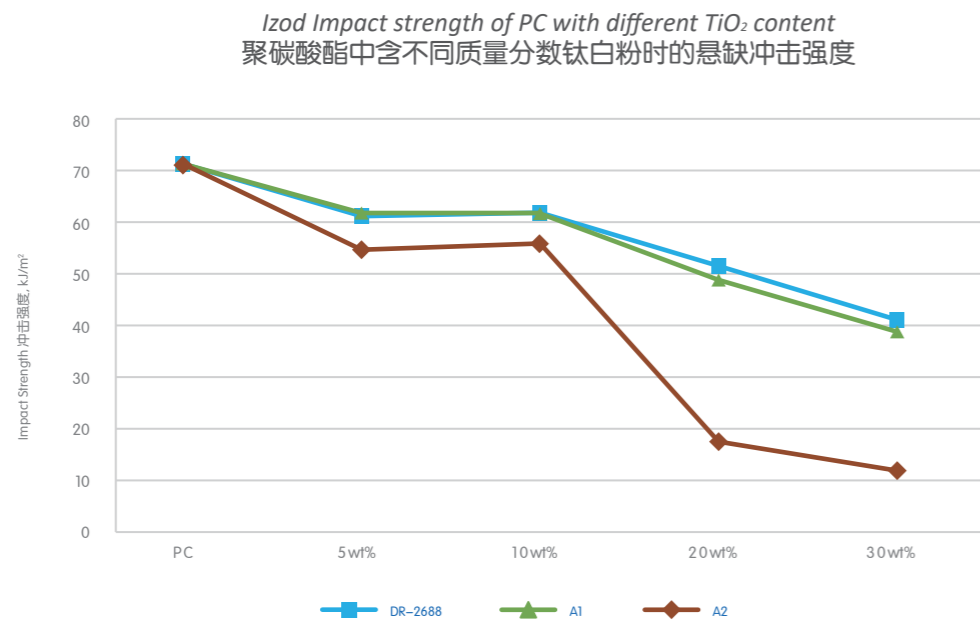
EXCELLENT POLYCARBONATE DEGRADATION RESISTANCE

优异的抗聚碳酸酯降解能力

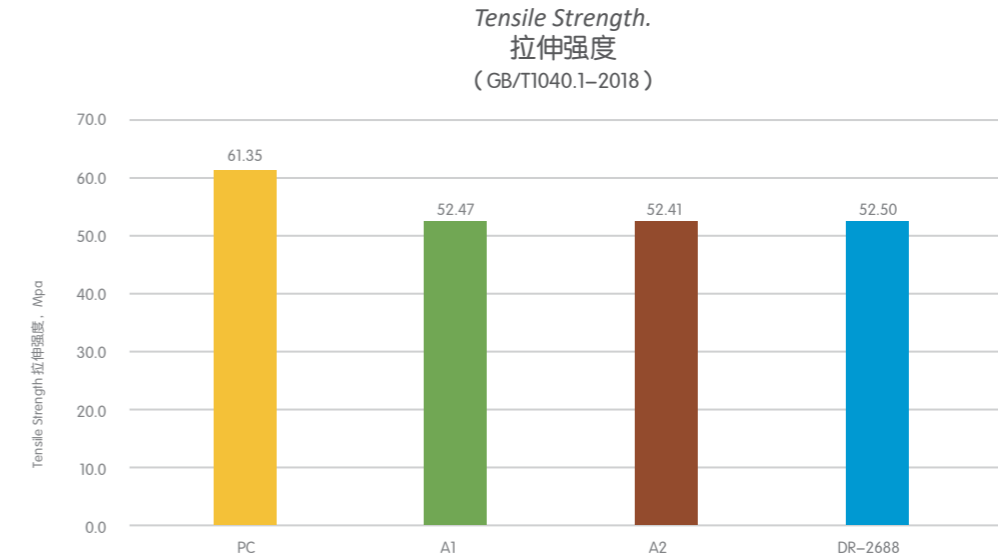
- Good mechanical properties like impact strength and tensile strength reflect excellent degradation resistance of DR-2688 in polycarbonate.
- Efficient impurity control technology and surface treatment bring DR-2688 excellent impact resistance.
- 我们通过冲击强度和拉伸强度等聚碳酸酯制品的力学性能, 来反映DR-2688对聚碳酸酯体系的抗降解能力, 聚碳酸酯制品的力学性能表现越优异, 则钛白粉对聚碳酸酯体系的抗降解能力越强。
- 得益于DR-2688特殊的高效的杂质控制技术和优秀的表面处理技术, DR-2688具有优异的抗冲击能力。



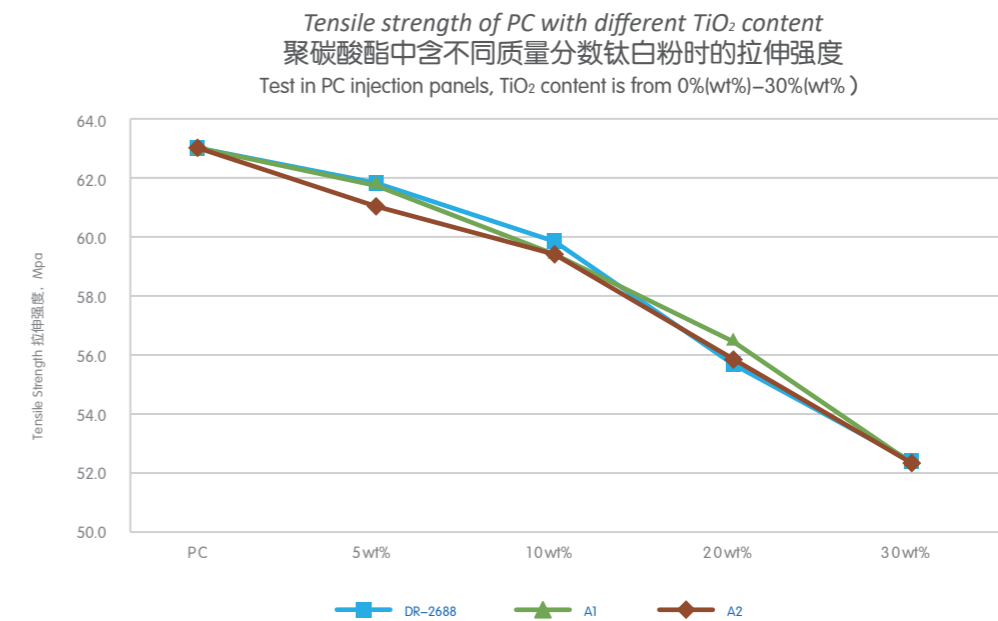
NOTE / 注:
Test in PC injection panels. TiO₂ content is 30% (wt%)
在钛白粉含量为30%的聚碳酸酯标准样条中测试。



- Efficient impurity control technology and surface treatment bring DR-2688 excellent tensile strength.
- 得益于DR-2688特殊的高效的杂质控制技术和优秀的表面处理技术, DR-2688具有优异的拉伸强度。



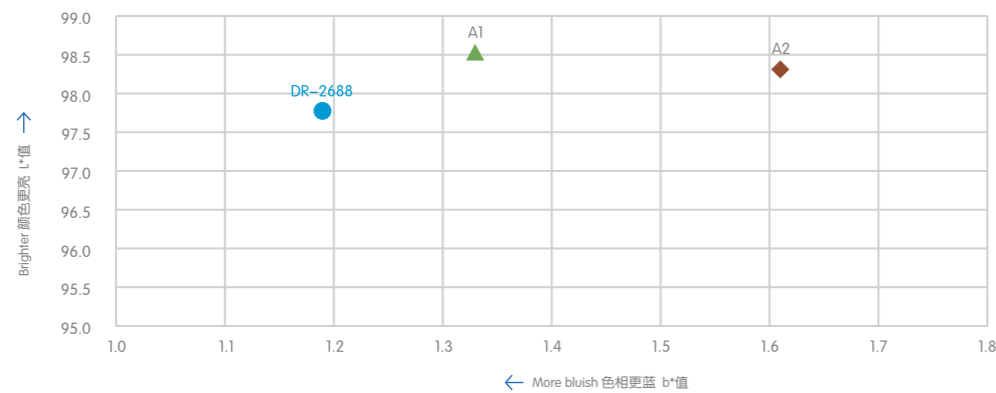
NOTE / 注:
Test in PC injection panels. TiO₂ content is 30% (wt%)
在钛白粉含量为30%的聚碳酸酯标准样条中测试



OUTSTANDING POLYCARBONATE YELLOWING RESISTANCE 优异的抗聚碳酸酯黄变能力

- Excellent impurity control technology, bluish undertone and outstanding dispersion make DR-2688's undertone close to chloride TiO₂, bringing downstream plastics bright whiteness.
- 得益于优秀的杂质含量控制技术、强烈的蓝底相和杰出的分散性, DR-2688的色相表现接近于优秀的氯化法产品水平, 在塑料中具有明亮的带蓝相的白度。

Color in PC injection panels
在聚碳酸酯注塑板中的颜色
(GB/T 3979-2008)



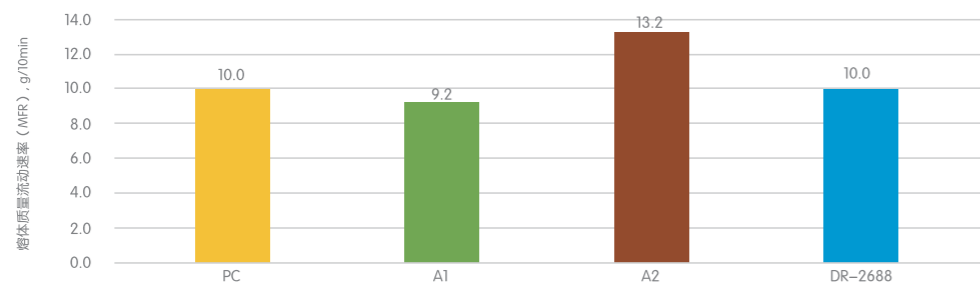
NOTE / 注:

Test in PC injection panels. TiO₂ content is 20% (wt%).
在钛白粉含量为20%的聚碳酸酯注塑板中测试

EXCELLENT PROCESSABILITY 优异的加工流动性

- The special surface treatment and outstanding dispersion make DR-2688 have excellent MFR, thus ensuring DR-2688 high competitiveness in polycarbonate.
- 得益于DR-2688特殊的表面处理工艺以及杰出的分散性, DR-2688具有优异MFR, 在聚碳酸酯体系应用领域极具竞争力。

Melting flow rate
熔体质量流动速率(MFR)
(ISO 1133-1:2011)



NOTE / 注:

Test in PC (MFR: 10.0g/10min) masterbatch. TiO₂ content is 30% (wt%).
在钛白粉含量为30%的聚碳酸酯(熔融指数为10.0g/10min)色母粒中测试

SUPER BLUISH UNDERTONE AND HIGH TINTING STRENGTH 超级蓝底相和高消色力

- Test tinting strength and undertone in grey PVC-P containing plasticizer.
- Concentrated particle size distribution and fine particle size enable DR-2688 to have super bluish undertone and good tinting strength.
- The super bluish undertone will eliminate the natural yellow color of resin so to get a brighter color. The yellower the resin undertone is, the better the elimination is. It can reduce the usage of ultramarine or phthalocyanine blue to obtain better economic benefits.
- The finer particle size makes DR-2688 with the same quality has more particles. With the help of good dispersion, DR-2688 has better hiding power and dilution ability.

- 在含增塑剂的灰色聚氯乙烯树脂(PVC-P)中测试消色力和底相。
- 得益于集中的粒径分布和较细的晶粒尺寸, DR-2688具有同类型产品中出众的超级蓝底相和消色力。
- 超蓝底相可以轻易的消除树脂中天然的黄色相, 树脂本身颜色越黄, 效果越好, 帮助塑料获得更明亮和令人愉悦的颜色, 同时减少群青或酞菁蓝的使用, 获得更佳的经济效益。
- 较细的晶粒尺寸使得同等质量下的钛白粉拥有更多数目的粒子, 在良好的分散帮助下, 可以获得更优秀的遮盖力和冲淡能力。

Undertone and tinting strength in grey PVC-P (TiO₂ content: 4PHR)
在聚氯乙烯体系PVC-P (灰色) 中的底相和着色力 (钛白粉含量4PHR)
(HG/T 4769.3-2014)

