



# Titanium Dioxide

应用于涂料和油墨行业的高性能钛白粉  
High Performance Titanium Dioxide

PNR-626

PNR-717

PNR-616

PNR-707



HONGDA GROUP LIMITED  
洪大集团有限公司



## 公司简介 BRIEF INTRODUCTION

攀枝花市海峰鑫化工有限公司是一家国家级高新技术企业，产品为各类高档金红石型高纯度颜料级钛白粉，其工艺设备和技术力量处于行业领先地位。宁波洪大进出口有限公司是一家具有二十多年历史的专业从事涂料原料出口业务的技工贸一体型企业，在客户需求分析和市场趋势预判方面具备敏锐而专业的眼光，产品远销北美、欧洲、中东、东亚、南美、东南亚等地区。两家公司携手整合资源、实行战略合作，共同研发金红石型 PNR-707、717、616、626等应用于不同领域的产品，该产品具有质量稳定、颜色蓝白、遮盖力强、分散性优异等特点，可广泛应用于涂料、塑料、造纸、油墨等领域。目前，工厂已完成新一轮扩建，生产能力将从现在的6万吨/年提高到8万吨/年，还可满足用户个性化需求，研发和定制各种特殊规格钛白粉。

Panzhuhua Haifengxin chemical Co., Ltd is a national high and new technology company producing kinds of top grade rutile type and high purity of rutile type grade titanium dioxide. It is equipped with advanced processing facilities, strong technology and an experienced and professional team that specializes in titanium dioxide production for many years.

Ningbo Hongda Imp.& Exp. Co., Ltd has been absorbed in technology development of coating raw materials and new products since it was founded in 1992, which is the most important strategic partner of Panzhuhua haifengxin chemical Co. Ltd and offers important technology service for the development and research of rutile type titanium dioxide PNR-707,PNR-717,PNR-626,PNR-616.Its products have stable quality, bluish shade, strong hiding power and excellent dispersibility, which are widely used in the fields of coating, plastic, papermaking, ink, etc. The factory has just finished its enlargement recently and its capacity is estimated to reach to 80,000MTS per year.

The products have well been sold to and accepted by America, Europe, Middle East, Japan&Korea, South America etc. countries and regions. The company can also customize various of special grade titanium dioxide for customers if needed.







## 产品介绍 PRODUCT INTRODUCTION

经过与攀枝花海峰鑫化工有限公司多年合作和研发，洪大集团收获了在钛白粉产品上新的突破。我们的品牌“鑫钛”已经获得了国内和国际市场的普遍认可。我们的高遮盖力金红石型钛白粉已经达到了国际大公司比如杜邦、康诺斯、科斯特、亨斯曼等的质量标准。我们的牌号都如下表所示，其中PNR-626是通用型，PNR-707适用于水性体系，PNR-717适用于溶剂体系，PNR-616适用于塑料和PVC延压膜方面等应用。

Through many years' research with Panzhihua Haifeng Xin chemical Co., Ltd. Hongda Group have gained great breakthrough in the development of Titanium Dioxide. Our brand name "XinTi" has gained a wide recognition at home and abroad. The rutile type Titanium Dioxide with the high hiding powder and adhesive force has reached to the quantity standard of such as Dupont, Kronos, Crystal, Huntsman. All specifications show in the below form, in which PNR-626 for universal application, PNR-707 for water based system, PNR-717 for solvent based system, and PNR-616 for plastic and PVC rolling film application.

### "鑫钛"金红石钛白粉 Xinti Titanium Dioxide

项目 Item	PNR-707	PNR-717	PNR-616	PNR-626
TiO <sub>2</sub> %(m/m) min.	94	96	96	94
Surface treatment	Al <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub>
Specific gravity	4.1	4.1	4.1	4.1
ISO591	R2	R2	R2	R2
ASTM D476	II, III, IV	II, III	IV	IV

类型 Type	涂料 Coatings			印刷油墨 Printing inks	塑料 Plastic		纸张 Paper	瓷砖 Porcelain	橡胶 Rubber
	室内 Indoor	室外 Outdoor	粉末涂料 Powder coating		聚氯乙烯 PVC	色母粒 Masterbatch			
PNR-707	●	●	▲	●	▲	■	▲	▲	▲
PNR-717	●	●	●	▲	●	●			
PNR-616	▲	▲	●	●	●	●	■		
PNR-626	●	●	●	▲	▲	▲	▲	●	●

● --特别推荐      ▲ --推荐      ■ --适用  
 ● --particularly recommended      ▲ --recommended      ■ --suitable



## 鑫钛牌金红石钛白粉PNR-616

### XINTI Brand Rutile Type Titanium Dioxide PNR-616



#### 基本信息 (Product Information):

型号 (Type) : 金红石 Rutile

表面处理 (Surface Treatment): 锆、铝 Zirconium and Aluminium

#### 产品特性 (Product Characteristics) :

PNR-616具有具有更细的粒径和更低的吸油量, 使其更适合需要高浓度的挤出应用。

主要适用于PVC压延膜等乳胶漆、醇酸哑光漆。

PNR-616 has fine partical size and low oil absorption ability which makes it pretty suitable for plastic extrusion process, such as Polyolefin, PVC Rolling Film, ABS, PS, tube and Emulsion paints、Alkyd matt paints.

#### 技术指标 (Technical Specification) :

检验项目 Item		质量指标 Specification
二氧化钛含量	TiO <sub>2</sub> %	≥96.0
105 °C 挥发物 %	105 °C Volatile %	≤1.0
筛余物(过45μm筛)	Fineness (45μm seize residue)	≤0.1
PH值	pH	6.5~9.0
水溶物 %	Matter soluble in water %	≤0.5
吸油量 g/100g	Oil absorption g/100g	≤15
水萃取液电阻率 Ω·m	Resistivity Ω·m	≥80.0
金红石型含量 %	Rutile %	≥97
干粉白度 Powder Whiteness CIE L*a*b	L*	≥98.5
	a*	-
	b*	≤2.0
制漆白度 Paint Whiteness CIE L*a*b	L*	≥95.0
	b*	≤3.0
消色力 (雷诺指数)	Lightening power (Reynold's number)	≥1850
研磨分散性	Mull Dispersibility	≥6.0
散射力 (与标样比较) %	Scattering Power (compare with the standard sample)%	≥90.0
表面处理	Surface treatment	Zr,Al;
AL <sub>2</sub> O <sub>3</sub>	AL <sub>2</sub> O <sub>3</sub>	2.5%
ZrO <sub>2</sub>	ZrO <sub>2</sub>	0.5%
粒径	Average particle size	约0.38μm About 0.38 μm

#### 应用领域 Application

乳胶漆 Emulsion paints  
醇酸哑光漆 Alkyd matt paints  
PVC压延膜 PVC Rolling Film  
塑钢门窗 Plastic-steel window frame

#### 特点 Properties

分散性、白度、光泽、遮盖力 Dispersion,Whiteness,Gloss,Opacity  
分散性、颜色、遮盖力 Dispersion,Colour,Opacity  
分散性、白度、光泽、耐久性 Dispersion,Whiteness,Opacity,Durability  
光泽、遮盖力、耐久性 Gloss,Opacity,Durability

#### 通过SGS以下测试 (Tested by SGS and Passed the Following Standards/regulations):

RoHS

EN71-3

卤素含量 Halogen Content

REACH

邻苯二甲酸酯含量 Phthalates Content

多环芳香烃化合物含量 PAHs Content



## 鑫钛牌金红石钛白粉PNR-626

### XINTI Brand Rutile Type Titanium Dioxide PNR-626



#### 基本信息 (Product Information):

型号 (Type) : 金红石 Rutile

表面处理 (Surface Treatment): 锆、铝 Zirconium and Aluminium

#### 产品特性 (Product Characteristics) :

本产品不仅白度好, 且具有高分散性、高消色力、高遮盖力、高光泽和高稳定性, 适合于涂料、油墨、造纸和塑料等用途。亦可用于其他特种用途如粉末涂料、汽车修补漆、卷钢涂料及塑钢门窗等。

PNR-626 is suitable for various kinds of industrial application such as coating, inks, paper and plastics. It is also suitable for speciality applications such as powder coating, automotive refinishing coating, window frames and coil coatings. The grade is designed for high opacity, excellent dispersion, durability and colour.

#### 技术指标 (Technical Specification) :

检验项目 Item		质量指标 Specification	
二氧化钛含量	TiO <sub>2</sub> %	≥94.0	
105 °C 挥发物 %	105 °C Volatile %	≤1.0	
筛余物(过45µm筛)	Fineness (45µm seize residue)	≤0.1	
PH值	pH	6.5~9.0	
水溶物 %	Matter soluble in water %	≤0.5	
吸油量 g/100g	Oil absorption g/100g	≤18	
水萃取液电阻率 Ω·m	Resistivity Ω·m	≥80.0	
金红石型含量 %	Rutile %	≥98	
干粉白度 CIE L*a*b	L*	≥98.5	
	a*	-	
	b*	≤2.0	
制漆白度	Paint Whiteness	L*	≥95.0
	CIE L*a*b	b*	≤3.0
消色力 (雷诺指数)	Lightening power (Reynold's number)	≥1850	
研磨分散性	Mull Dispersibility	≥6.0	
散射力 (与标样比较) %	Scattering Power (compare with the standard sample)%	≥90.0	
表面处理	Surface treatment	Zr, Al;	
AL <sub>2</sub> O <sub>3</sub>	AL <sub>2</sub> O <sub>3</sub>	2.5%	
ZrO <sub>2</sub>	ZrO <sub>2</sub>	0.5%	
粒径	Average particle size	约0.38µm About 0.38 µm	

#### 应用领域 Application

乳胶漆 Emulsion paints  
醇酸哑光漆 Alkyd matt paints  
(油性)高光漆 Gloss panits (solvents base)  
汽车漆 Automotive finishes  
粉末涂料 Powder coating  
塑钢门窗 Plastic-steel window frame  
金属装饰漆 Matel decorative paints  
卷钢涂料 Coil coating

#### 特点 Properties

分散性、白度、光泽、遮盖力 Dispersion, Whiteness, Gloss, Opacity  
分散性、颜色、遮盖力 Dispersion, Colour, Opacity  
分散性、白度、光泽、耐久性 Dispersion, Whiteness, Opacity, Durability  
光泽、遮盖力、耐久性 Gloss, Opacity, Durability  
颜色、遮盖力、耐久性 Colour, Opacity, Durability  
颜色、光泽、耐久性、白度、遮盖力 Colour, Gloss, Opacity, Durability  
分散性、白度、遮盖力 Dispersion, Whiteness, Opacity  
分散性、光泽、耐久性 Dispersion, Gloss, Durability

#### 通过SGS以下测试 (Tested by SGS and Passed the Following Standards/regulations):

RoHS

EN71-3

卤素含量 Halogen Content

REACH

邻苯二甲酸酯含量 Phthalates Content

多环芳香烃化合物含量 PAHs Content



## 鑫钛牌金红石钛白粉PNR-707

### XinTi Brand Rutile Type Titanium Dioxide PNR-707



基本信息 (Product Information):

型号 (Type) : 金红石 Rutile

表面处理 (Surface Treatment): 硅、铝 Silicon and Aluminium

产品特性 (Product Characteristics) :

本产品不仅白度好, 且具有高分散性、高消色力、高遮盖力、高光泽和高稳定性. 适合于涂料、油墨、高光漆和水性漆等用途, 同时也适用于塑料、橡胶、造纸和皮革。

PNR-707 is suitable for various kinds of industrial application such as coating, inks, special in water based system. It is also suitable for speciality applications such as powder coating, automotive refinishing coating, and water based coatings. This pigment can also be successfully utilized for plastic, rubber, paper and leather ect. The grade is designed for high opacity, excellent dispersion, durability and colour.

技术指标 (Technical Specification) :

检验项目 Item		质量指标 Specification	
二氧化钛含量	TiO <sub>2</sub> %	≥94.0	
105 °C 挥发物 %	105 °C Volatile %	≤1.0	
筛余物(过45µm筛)	Fineness (45µm sieve residue)	≤0.1	
PH值	pH	6.5~9.0	
水溶物 %	Matter soluble in water %	≤0.5	
吸油量 g/100g	Oil absorption g/100g	≤25	
水萃取液电阻率 Ω·m	Resistivity Ω·m	≥80.0	
金红石型含量 %	Rutile %	≥98	
干粉白度 CIE L*a*b	L*	≥98.5	
	a*	-	
	b*	≤2.0	
制漆白度	Paint Whiteness	L*	≥95.0
	CIE L*a*b	b*	≤3.0
消色力 (雷诺指数)	Lightening power (Reynold's number)	≥1850	
研磨分散性	Mull Dispersibility	≥6.0	
散射力 (与标样比较) %	Scattering Power (compare with the standard sample) %	≥90.0	
表面处理	Surface treatment	Si, Al;	
AL <sub>2</sub> O <sub>3</sub>	AL <sub>2</sub> O <sub>3</sub>	2.5%	
SiO <sub>2</sub>	SiO <sub>2</sub>	0.5%	
粒径	Average particle size	约0.38µm About 0.38 µm	

#### 应用领域 Application

乳胶漆 Emulsion paints  
水性漆 Water based paints  
水性墨 Water based ink  
印花色浆 Printing paste  
色母粒 Masterbatch  
金属装饰漆 Metal decorative paints  
卷钢涂料 Coil coating

#### 特点 Properties

分散性、白度、光泽、遮盖力 Dispersion, Whiteness, Gloss, Opacity  
分散性、白度、光泽、耐久性 Dispersion, Whiteness, Opacity, Durability  
光泽、遮盖力、耐久性 Gloss, Opacity, Durability  
颜色、遮盖力、耐久性 Colour, Opacity, Durability  
颜色、光泽、耐久性、白度、遮盖力 Colour, Gloss, Opacity, Durability  
分散性、白度、遮盖力 Dispersion, Whiteness, Opacity  
分散性、光泽、耐久性 Dispersion, Gloss, Durability

通过SGS以下测试 (Tested by SGS and Passed the Following Standards/regulations):

RoHS

EN71-3

卤素含量 Halogen Content

REACH

邻苯二甲酸酯含量 Phthalates Content

多环芳香烃化合物含量 PAHs Content



## 鑫钛牌金红石钛白粉PNR-717

### XinTi Brand Rutile Type Titanium Dioxide PNR-717



#### 基本信息 (Product Information):

型号 (Type) : 金红石 Rutile

表面处理 (Surface Treatment): 铝 Aluminium

#### 产品特性 (Product Characteristics) :

本产品不仅白度好,且具有高分散性、高消色力、高遮盖力、高光泽和低吸油量耐黄变,适合于油性涂料、溶剂性油墨、高光漆和油性漆等用途,同时也适用于塑料、橡胶、造纸和皮革。

PNR-717 is suitable for various kinds of industrial application such as coating, inks, paints specially in solvent based system. It is also suitable for speciality applications such as powder coating, automotive refinishing coating, and solvent based coatings. This pigment can also be successfully utilized for plastic, rubber, paper and leather ect. The grade is designed for high opacity, excellent dispersion, durability and low oil absorption and low viscosity.

#### 技术指标 (Technical Specification) :

检验项目 Item		质量指标 Specification
二氧化钛含量	TiO <sub>2</sub> %	≥96.0
105 °C 挥发物 %	105 °C Volatile %	≤1.0
筛余物 (过45μm筛)	Fineness (45μm sieve residue)	≤0.1
PH值	pH	6.0~8.5
水溶物 %	Matter soluble in water %	≤0.5
吸油量 g/100g	Oil absorption g/100g	≤15
水萃取液电阻率 Ω·m	Resistivity Ω·m	≥60.0
金红石型含量 %	Rutile %	≥98
干粉白度 CIE L*a*b	L*	≥98.5
	a*	-
	b*	≤2.0
制漆白度	Paint Whiteness CIE L*a*b	L* ≥95.0
		b* ≤3.0
消色力 (雷诺指数)	Lightening power (Reynold's number)	≥1950
油分散性	Oil Dispersibility	≥6.0
散射力 (与标样比较)%	Scattering Power (compare with the standard sample)%	≥90.0
表面处理	Surface treatment	Al
AL <sub>2</sub> O <sub>3</sub>	AL <sub>2</sub> O <sub>3</sub>	2.5%
粒径	Average particle size	约0.38μm About 0.38 μm

#### 应用领域 Application

乳胶漆 Emulsion paints  
 油性漆 Solvent based paints  
 油性墨 Solvent based ink  
 色母粒 Masterbatch  
 金属装饰漆 Metal decorative paints  
 卷钢涂料 Coil coating

#### 特点 Properties

分散性、白度、光泽、遮盖力 Dispersion, Whiteness, Gloss, Opacity  
 分散性、白度、光泽、耐久性 Dispersion, Whiteness, Opacity, Durability  
 光泽、遮盖力、耐久性 Gloss, Opacity, Durability  
 颜色、遮盖力、耐久性 Colour, Opacity, Durability  
 颜色、光泽、耐久性、白度、遮盖力 Colour, Gloss, Opacity, Durability  
 分散性、白度、遮盖力 Dispersion, Whiteness, Opacity  
 分散性、光泽、耐久性 Dispersion, Gloss, Durability

#### 通过SGS以下测试 (Tested by SGS and Passed the Following Standards/regulations):

RoHS

EN71-3

卤素含量 Halogen Content

REACH

邻苯二甲酸酯含量 Phthalates Content

多环芳香烃化合物含量 PAHs Content



# 鑫钛牌金红石钛白粉PNR-626你最好的选择

## PNR-626 Titanium Dioxide-Your Best Choice



### 你最好的选择 You Best Choice

洪大集团隆重为您介绍这款应用于涂料行业的改进型多功能钛白粉PNR-626型。满足您所在寻求的各种需要。PNR-626型是您对所有涂层需求的最佳选择。使用我们洪大集团PNR-626型钛白粉的技术优势列举如下：

Hongda would like to introduce an improved, multi-functional titanium dioxide for the coating industry called PNR-626. Delivering all the benefits you are looking for. PNR-626 is the best choice for all your coating needs. The technical advantages of using XinTi Titanium Dioxide PNR-626 are listed below:

#### 产品优势1：PNR-626为您提供总体价值

#### Advantage 1: PNR-626 Delivers Total Value

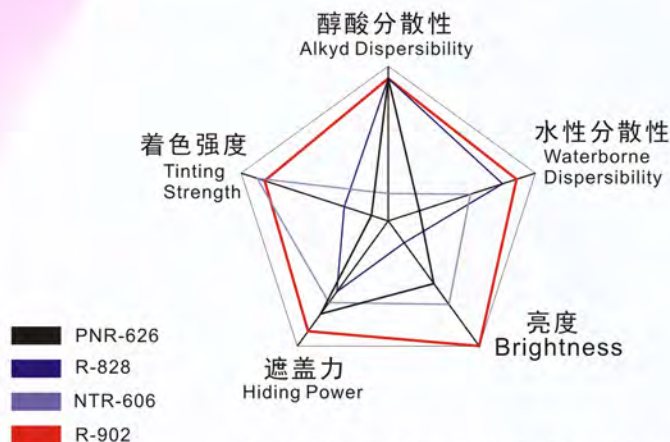
#### 提高了遮盖力 Improved Hiding Power

- 更好的涂层覆盖 Better coating coverage
- 最少量的钛白粉用于涂料配方 Minimum  $TiO_2$  use in coating formulation

PNR-626型于各种涂料配方中都能提供优异的遮盖力和着色强度。

如图所示, 我们通过广泛的测试表明: PNR-626型一致优于全球竞争对手产品的多种品级, 超强的色散力和独特的粒径分布是PNR-626型优异的光学性能的关键。使用PNR-626将提供优异的涂层覆盖, 并可以通过降低钛白粉在涂料中的用量, 来使涂料生产商减少涂料原材料的成本费用。

PNR-626 provides exceptional hiding power and tint strength in a wide variety of coating formulation as shown, our extensive testing has shown that PNR-626 consistently outperforms multi-functional grades from XinTi competitors. The exceptional dispersion and unique particle size distribution of PNR-626 is the key to excellent optical performance. Using PNR-626 will provide excellent coating coverage and may allow coating producers to reduce the coating raw material costs by reducing the amount of  $TiO_2$  in the paint.



性能属性量表扩展以说明相对色素的差异  
\*performance attribute scales expanded to illustrate relative pigment differences



# 鑫钛牌金红石钛白粉PNR-626你最好的选择

## PNR-626 Titanium Dioxide-Your Best Choice



**产品优势2: PNR-626型易于在溶剂型醇酸树脂体系下分散, 并且在长油醇酸配方中具有较快的分散时间。**  
**Advantage 2: PNR-626 Disperses easily in solvent based alkyds, and has faster dispersion times in long oil alkyd formulations**

如图所示, 表明在醇酸树脂体系下, PNR-626型的易分散性与竞争品级之间的比较。它还强调了其在提高生产效率与节省能源上所提供的的作用。使用专有的协议来衡量不分散的颗粒数。

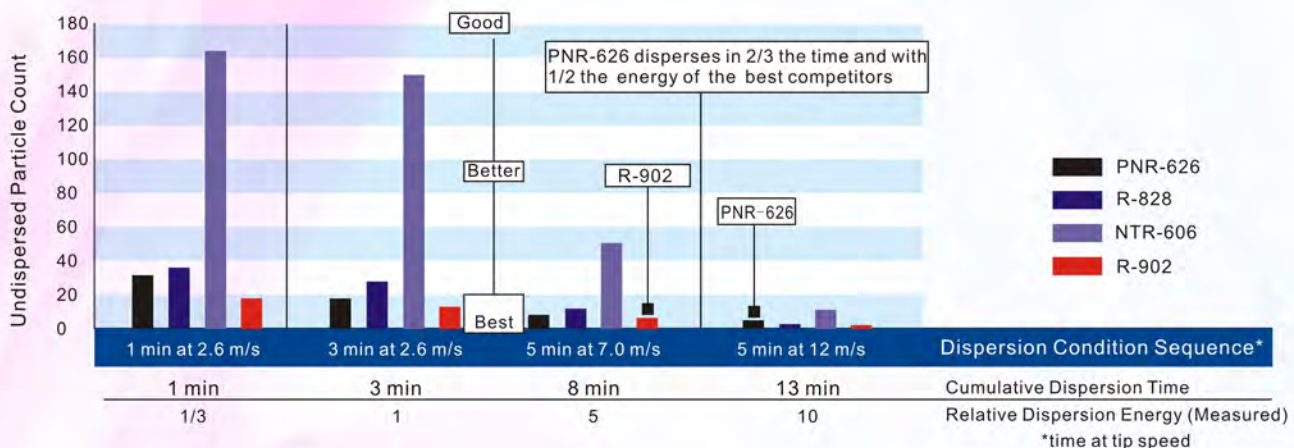
随着醇酸树脂分散时间和强度的增加, 色散条件是通过一种特殊的分散性计量器来评估, 利用杜邦的光学计数器 (DOC), 通过提取缩编的数字图像, 来对色散条件进行分析。

结果表明, 不同的研磨条件下, 不同牌号的二氧化钛分散程度差别很大。然而大多数颜料需要极高的研磨强度 (5分钟内12米/秒) 来实现清洁分散 (不分散粒子 < 10)。PNR-626型则用更少的时间和成本达到完整的分散效果。

As shown in the figure, demonstrates in alkyds, the ease of dispersion PNR-626 relative to competitive grades. It also highlights improved productivity and energy savings.

As alkyd dispersion time and intensity are increased, the dispersion condition is evaluated using a special hegman gauge dispersion condition is analyzed using the DuPont Optical Counter (DOC) which takes a digital image of the drawdown. And used proprietary protocol to measure the number of undispersed particles.

The results show wide variation in how different TIO2 grades disperse following the various grind conditions. While most pigments require the highest grind intensity (5 minutes at 12m/s) to achieve a clean dispersion (<10 undispersed particles). PNR-626 achieves complete dispersion using much less time and cost.



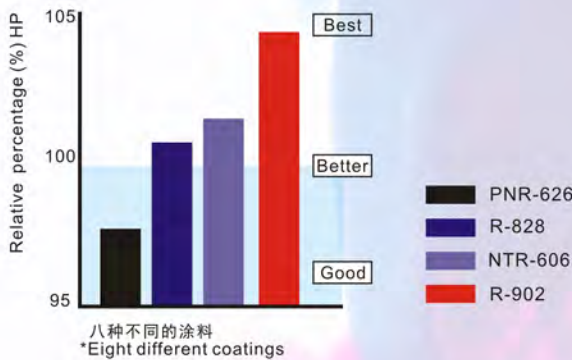


# 鑫钛牌金红石钛白粉PNR-626你最好的选择

## PNR-626 Titanium Dioxide-Your Best Choice



**优势 3: PNR-626型提供优越的遮盖力和较低的吸油量**  
**Advantage 3: PNR-626 Provides superior hiding power and lower oil absorption**



### 优异的分散力 Superior Dispersion

- 更低的能耗  
• Lower energy consumption
- 更短的分散时间, 更高的生产效率  
• Higher productivity from shorter dispersion time
- 通过更一致的分散力改善产品质量的一致性  
• Improved product quality consistency from more consistent dispersion

### PNR-626型还提供: PNR-626 also provides

- 优异的着色力 Superior tinting strength
- 带有明亮蓝相的白度 Bright bluish shade whiteness

**优势 4: PNR-626型能在水性体系中改善分散时间和节约能源**  
**Advantage 4: PNR-626 improves dispersion time and energy saving in water based systems.**

竞争对手A产品  
以1000rpm的速度  
混合于丙烯酸乳液中20分钟  
Competitor A mixed in acrylic  
emulsion 20 minutes at 1000 rpm



竞争对手A产品  
以1000rpm的速度  
混合于丙烯酸乳液中40分钟  
Competitor A mixed 40 minutes at  
1000 rpm



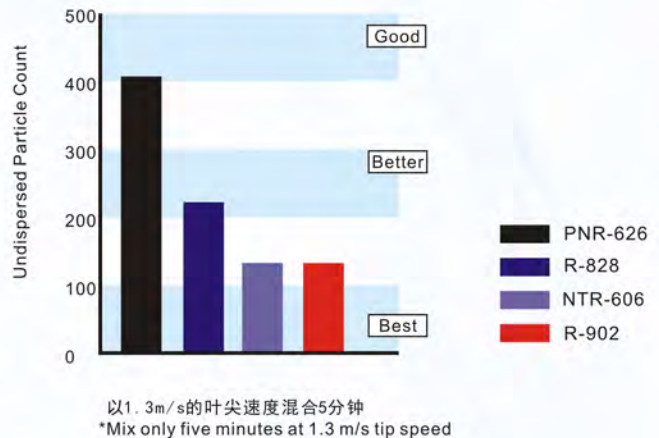
PNR-626型  
以1000rpm的速度  
混合于丙烯酸乳液中20分钟  
PNR-626 mixed in acrylic emulsion  
20 minutes at 1000 rpm.



PNR-626型比低能量混合的  
竞争对手A的分散效果更好  
PNR-626 disperses much better  
than competitor A with low energy  
mixing

即使混合达两倍时长后, 竞争  
对手A的产品在分散效果上依然  
没有PNR-626来得好。  
Even after mixing twice as long,  
Competitor A still not dispersed  
as well as PNR-626.

**优势 5: PNR-626型易分散在丙烯酸乳液中**  
**Advantage 5: PNR-626 disperses easily in acrylic emulsions.**



除了显著的技术效益, PNR-626型还提供商业优势  
 相比于其他用于高标准涂料的钛白粉, 它具有更好的品质

As well as significant technical benefits PNR-626 also provides commercial advantages comparative to other higher quality titanium dioxides used in higher specification coatings



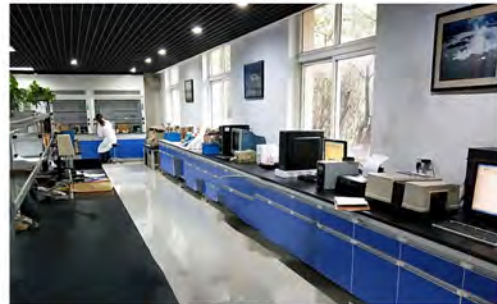
# Sales Network



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Add: 535 QingShuiQiao Road 11th Floor Office Park Building Ningbo Hi-Tech Park  
地址: 宁波市科技园区清水桥路535号新城国际11楼  
Tel: 0086-574-87907888 电话: 0086-574-87907888  
Fax: 0086-574-87917070 87265831 传真: 0086-574-87917070 87265831  
Http://www.hongda-chem.com E-mail: info@hongda-chem.com