



## **LOMON<sup>®</sup> LR-971**

### **Titanium Dioxide Pigment**

## **PRODUCT DESCRIPTION**

LOMON<sup>®</sup> LR-971 is Zirconia and Alumina treated rutile titanium dioxide pigment. It is capable of greatly decreased loading amount compared with present lightly coated rutile or anatase titanium dioxide pigment. Its superior features as followed:

- It is a heavily silica-alumina surface coated rutile titanium dioxide pigment
- It is designed to give maximum opacity in highly pigmented flat paints and printing inks
- It is readily dispersible in aqueous paints
- Better outdoor durability.

## **APPLICATIONS**

- Architectural latex paints
- Matt flexographic inks
- Air-drying matt paints
- Paper coatings
- Wallpaper coatings



## TECHNICAL DATA SHEET

### Typical value of

#### Analysis and Physical Properties of LOMON® LR-971

ITEM	LR-971
TiO <sub>2</sub> , content, min.	84
Mean particle size(μ m)	0.23
Surface treatment	SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub>
Density(g/cm <sup>3</sup> )	3.7
Bulk density (tamped) (g/cm <sup>3</sup> )	0.44
Oil absorption(g/100g)	39
Water absorption(g/100g)	38
pH	8.5
Specific resistance(us/cm)	80
ISO 591 classification	R3
ASTM D476 classification	III

\* 0.5% (NaPO<sub>3</sub>)<sub>6</sub> solution.

### Acrylic Latex Paint Formulation

Water	220g	
Propanediol	20g	
Tamol 731 ①	6g	①Anionic dispersant from ROHM&HAAS
HYDROPALAT 188A ②	1.8g	②Wetting agent from COGNIS
AMP-95 ③	2g	③Multi-functional amine additive from ANGUS
FoamStar A36 ④	3.2g	④Deformer from COGNIS
TiO <sub>2</sub> sample	150g	
CaCO <sub>3</sub> (800 mesh) ⑤	99g	⑤Calcium carbonate from BaoXing SiChuan,China



Clay ⑥	192g	⑥Kaolin from YuCi ShanXi,China
Texanol ⑦	9g	⑦From EASTMAN
2% cellulose ER-4400 ⑧	105g	⑧HEC thickener from DOW
Acronal PA237 ⑨	187g	⑨Acrylic acid / metha-acrylate Latex from BASF
Acrysol RM—2020 ⑩	5g	⑩Acrylic thickener from ROHM&HAAS
Total	1000g	

<b>PVC Grinding Coating</b>	<ul style="list-style-type: none"> <li>● Total PVC 64%, PVC of TiO2 16.5%</li> <li>● Red Devil 5400 Paint Conditioner</li> <li>● For Color evaluation, coated in 150 micron thick with wet film applicator on a glass plate.</li> <li>● For Opacity evaluation, coated in 60 and 100 micron thick wet film with barcoater on a black-white paper board.</li> </ul>
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### Test Results

	LR-971	R-996	Anatase
L	96.16	95.85	95.69
a	-0.26	-0.23	0.05
b	1.64	1.89	0.78
Hunter whiteness	95.82	95.43	95.62
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Y on black substrate	82.98	80.77	79.10
60µm Y on white substrate	88.61	87.95	87.86
Contrast Ratio	0.9365	0.9184	0.9002
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Y on black substrate	87.50	86.26	84.83
100µm Y on white substrate	90.39	89.64	89.26
Contrast Ratio	0.9680	0.9623	0.9504



Fig1. C.R-Spreading amount curve

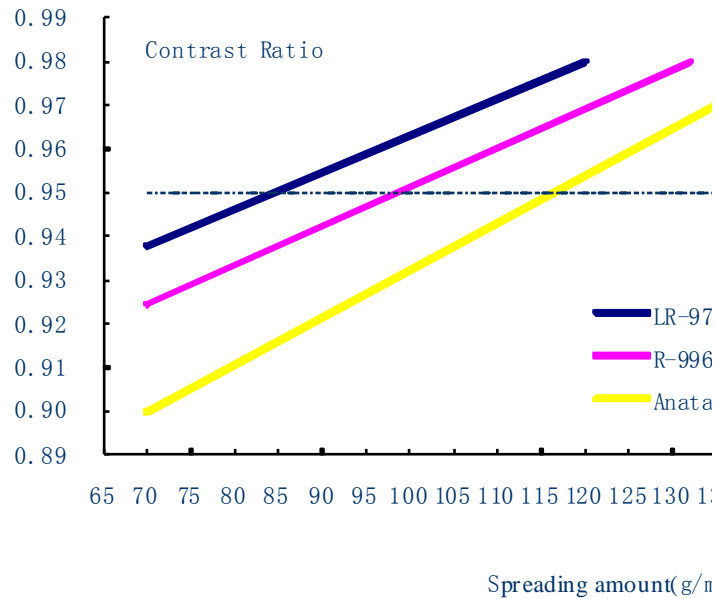
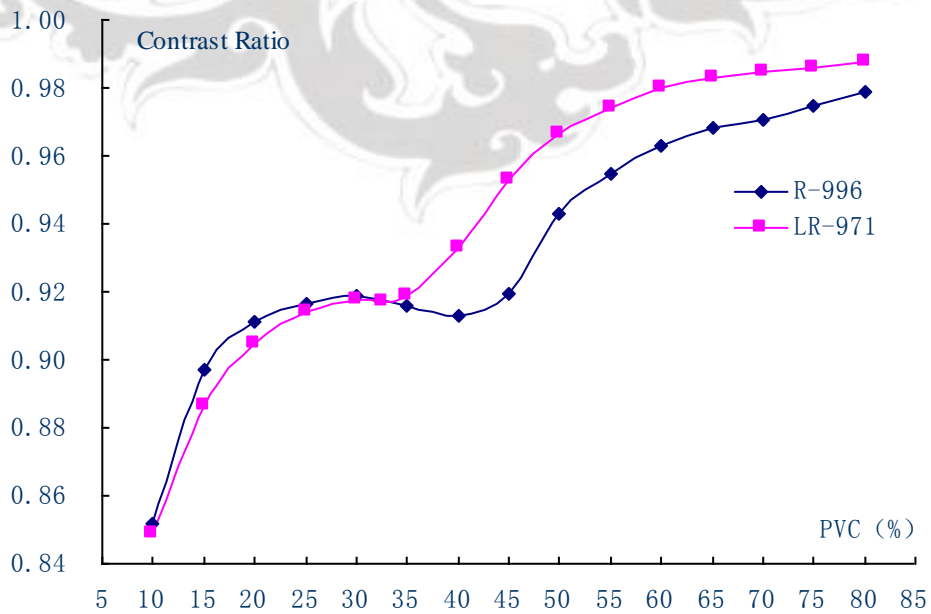


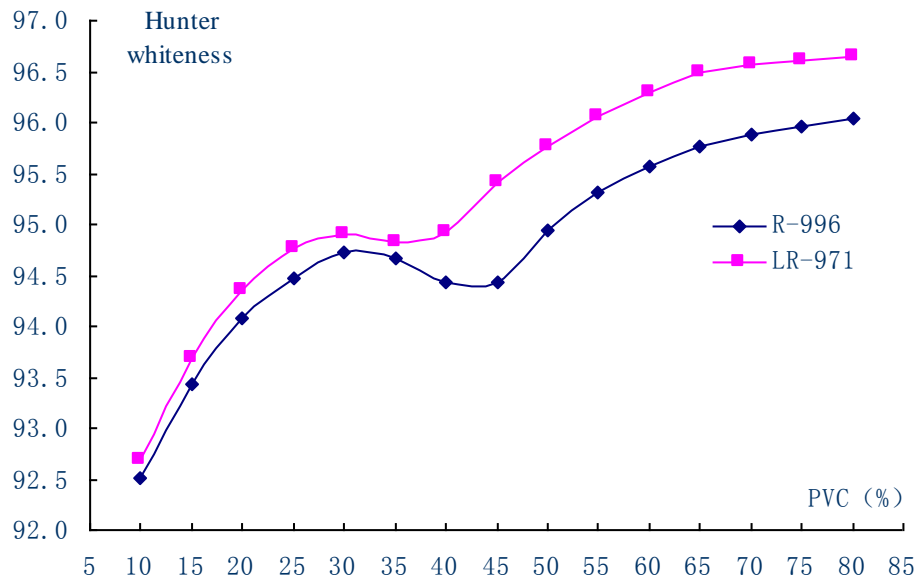
Figure 1 shows under same hiding power (the contrast ratio is 0.95), the Spreading amount of LR-971, R-996, Anatase TiO<sub>2</sub> are 84, 98, 116g/m<sup>2</sup>, that the relative hiding power are 100, 83, 62. It depicts that LR-971 has excellent hiding power in latex paint.

Fig2. Hiding power chart





**Fig3. Whiteness chart**



## SAFETY & HEALTH INSTRUCTION

All Lomon TiO<sub>2</sub> products including R996 are not hazardous article according to international standard. Material Safety Data Sheet will be provided.

## PACKING & TRANSPORTION

25KG, 500KG and 1000KG, seaworthy and suitable for container transportation

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### Customer Support

According to our world map guidance you can find the information of our region sales managers, please do not hesitate to contact us if you have any questions.