

## 超耐候性白色顔料

# SUPER-DURABLE TITANIUM DIOXIDE D-918

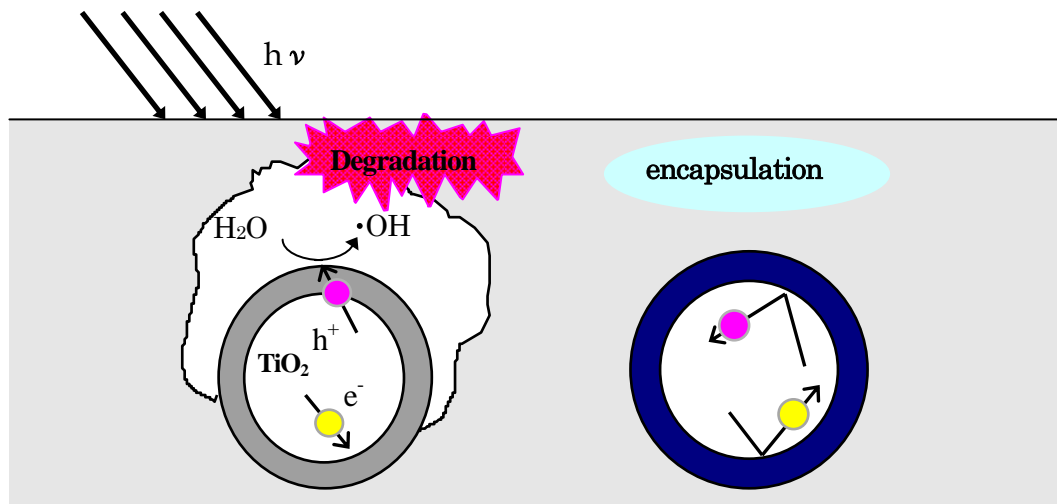
### CHARACTERISTICS

D-918 はフッ素樹脂塗料、自動車上塗り塗料等、高度の耐候性が要求される塗料において、従来の耐候性レベルを超えた酸化チタンです。

D-918 は特徴ある表面処理によって光沢、隠蔽性についても従来の耐候性グレードのレベルを超えた品質を示します。

D-918 is a super durable titanium dioxide. Its weatherability outperforms those of the low-temperature cure fluoropolymer paints, automobile topcoats and any other conventional paints that require a high weatherability.

With its unique surface-treatment, D-918's gloss and hiding power outperform any other conventional weatherable TiO<sub>2</sub> products.



### SPECIFICATION

Grade	D-918
結晶形	Rutile
製造方法	Sulfate Method
平均粒子径 (μm)	0.26
TiO <sub>2</sub> content (% ,min)	85
真比重	4.0
吸油量 (ml/100g pigment)	20~24
pH	7~9
表面処理	Si,Zr,Al

## COATING PERFORMANCE EVALUATION

### Gloss and hiding power performance evaluation

① Resin: **fluoropolymer** (Solvent based heat curing with blocked isocyanate: NCO/OH=9/10)

dry PVC=14% , dry PWC=41% , P/B=0.7

grade	process	surface coating	specular gloss	hiding power
			20° -20°	Yb/Yw
<b>D-918</b>	<b>S</b>	<b>Si/Zr/Al</b>	<b>58</b>	<b>0.95</b>
Competitive A	S	Si/Al	50	0.93
Competitive B	S	Zr/Al	54	0.94
Competitive C	Cl	Si/Al	48	0.93
Competitive D	Cl	Zr/Al	53	0.94

② Resin: Automotive top coat: **polyester/melamine** (Solvent based heat curing)

dry PVC=14% , dry PWC=41% , P/B=0.7

grade	process	surface coating	specular gloss	hiding power
			20° -20°	Yb/Yw
<b>D-918</b>	<b>S</b>	<b>Si/Zr/Al</b>	<b>66</b>	<b>0.97</b>
Competitive A	S	Si/Al	62	0.95
Competitive B	S	Zr/Al	65	0.96
Competitive C	Cl	Si/Al	62	0.94
Competitive D	Cl	Zr/Al	64	0.95

Coating method: on a glass plate with 1.5Mils applicator

Hiding power: Yb/Yw=CIE Y value of white coat on a **black** substrate / on a **white** substrate

## Weather Resistance Evaluation

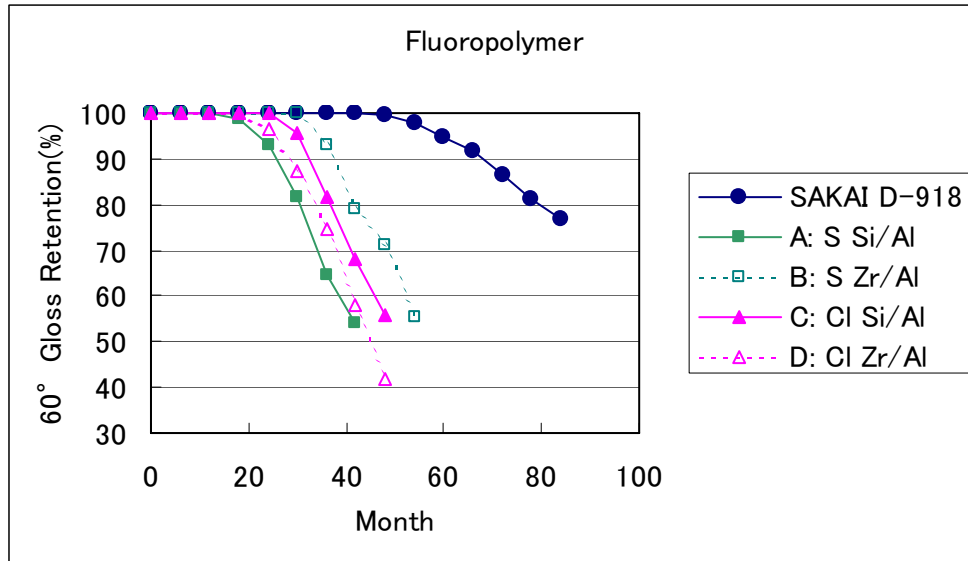
D-918 shows its full performance with high weatherable resins due to its blocking property of catalysis of  $\text{TiO}_2$ .

### Natural Weathering Test (in Okinawa)

Resin: **Fluoropolymer**

(Solvent based heat curing with blocked isocyanate :NCO/OH=9/10)

P/B=0.7, dry PVC=14%, dry PWC=41%



Resin: **Urethane Acrylate**

NCO/OH=1/1

P/B=1.2, dry PVC=23%, dry PWC=56%

