



Ti-Pure™

R-942P Titanium Dioxide

Product Information

Product Description

Ti-Pure™ R-942P titanium dioxide slurry is designed and manufactured for use in the paper industry. It is a high opacity white pigment for coatings or wet end applications. It is an aqueous slurry with the following general properties.

Table 1.

Typical Properties of Ti-Pure™ R-942P

Slurry Property	Units	Typical Property
Solids	%	76.5
Grit, % retained on 325 mesh	%	0.0002
pH		9.0
Rheology, Hercules at 500 RPM	cps	32.5
Brookfield Viscosity, #3 spindle, 100 RPM	cps	195
Horiba PS Median, D50	µm	0.390
Horiba PS Geometric Standard Deviation, GSD		1.53
Slurry density @25 degrees C	lb/gal	19.4
TAPPI Brightness		98.0

Note: All values are typical unless otherwise specified.

Key Features

- High Opacity/Hiding Power
- Excellent Brightness
- Superior Pigment Dispersion
- Stable Slurry
- Good Compatibility

Opacity/Hiding Power

R-942P provides excellent opacifying performance due to highly efficient light scattering. The higher the TiO₂ light scattering, the less TiO₂ that is needed to achieve an opacity target. The high refractive index of the rutile TiO₂ crystal and optimized particle size provide an inherent light scattering advantage in paper coating and wet end applications.

Brightness

R-942P TiO₂ is produced by chloride process technology and has extremely high inherent brightness. High brightness combined with superior light scattering provides excellent brightness and whiteness to paper and paperboard products.

Pigment Dispersion

Proper dispersion of the TiO₂ particles is the key to achieving optimum optical performance. Flocculated or agglomerated TiO₂ particles significantly reduce light scattering performance and require the use of more TiO₂ to achieve a desired opacity. The TiO₂ particles in Ti-Pure™ R-942P TiO₂ are extremely well dispersed as indicated by excellent viscosity under both low and high shear and narrow particle size distribution for a highly-loaded slurry.

Stable Slurry

It is resistant to bacterial growth, does not gel, and settles very slowly.

Regulatory Status

Ti-Pure™ R-942P titanium dioxide pigment is acceptable for many indirect food use applications. Please contact your Chemours representative for regulatory compliance statements for your country and application.

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