



Ti-Pure™ R-902+ Titanium Dioxide

Grade Snapshot

Product Information

Product Description

Ti-Pure™ R-902+ is a rutile titanium dioxide pigment, manufactured by the chloride process and is delivered as a fine, dry powder. Ti-Pure™ R-902+ is a product that can be used in every application and quality level, providing flexibility in coatings production process and supply chain.

Ti-Pure™ R-902+ is designed with flexibility in mind. The surface treatment of R-902+ balances organic and inorganic treatments to decrease agglomerates formation and reduce total dispersion time. It is optimized for multiple types of systems, both water and solvent based, to maximize the wetting and dispersion of the pigment and to achieve higher hiding and tinting strength in the final application.

Available in 25-kg bags and 1 metric ton semi-bulk containers.

Key Benefits

- High-performance in many end-use applications
- Balance of chalk resistance, hiding, and gloss, which allows for broad use in both interior and exterior coatings
- Particle size design and control for higher productivity and consistency
- Excellent dispersion, which reduces mixing time and energy consumption

Suggestions for Use

Ti-Pure™ R-902+ is frequently found in architectural paints, especially semi-gloss, eggshell, and satin finishes; Automotive refinish coatings; General industrial uses such as non-durable coil and powder coatings.



Automated Tinting Systems

Ti-Pure™ R-902+ provides excellent dispersion, exceptional hiding power, and high tint strength for systems which require batch to batch consistency for color replication in a wide variety of coating formulations. Ti-Pure™ R-902+ is produced on continuous chloride production lines with a strict statistical quality control system, resulting in quality and consistency that has made it a benchmark for use in automated tinting systems.

Waterborne Architectural Coatings

Ti-Pure™ R-902+ is a high performing pigment for most coatings applications with neutral undertone. It provides exceptional hiding power and tint strength in a wide range of coatings systems that allows minimum TiO₂ use in coatings formulations.

Solvent based Alkyd Coatings for Light Industrial/ Construction

Across multiple base chemistries, a poor pigment dispersion can cause application problems resulting in added cost and time to adjust formulations as well as complexity in manufacturing rework and customer complaints. Ti-Pure™ R-902+ is designed and manufactured to provide flexibility and confidence to manufacturers to specifically address these concerns.

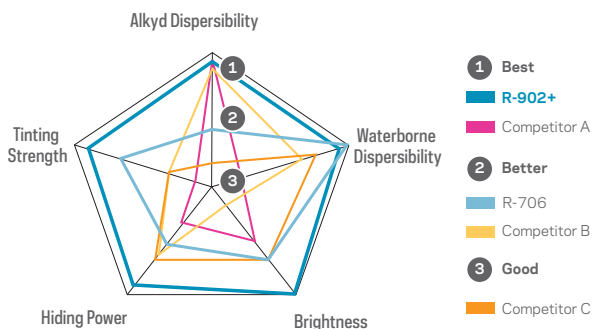
Table 1. Physical Properties

Property	Ti-Pure™ R-902+
TiO ₂ , wt%, min.	93
Alumina	Yes
Amorphous Silica	Yes
Specific Gravity	4.0
Bulking Value, L/kg (gal/lb)	0.25 (0.03)
Organic Treatment	Yes
Color CIE L*	99.6
Median Particle Size, μm	0.405
Oil Absorption	16.2
pH	7.9
Resistance at 30 °C (86 °F) (1,000 ohm)	8.1
Carbon Black Undertone	11.7

Note: All values are typical unless otherwise specified.
 *as measured by Horiba LA-300

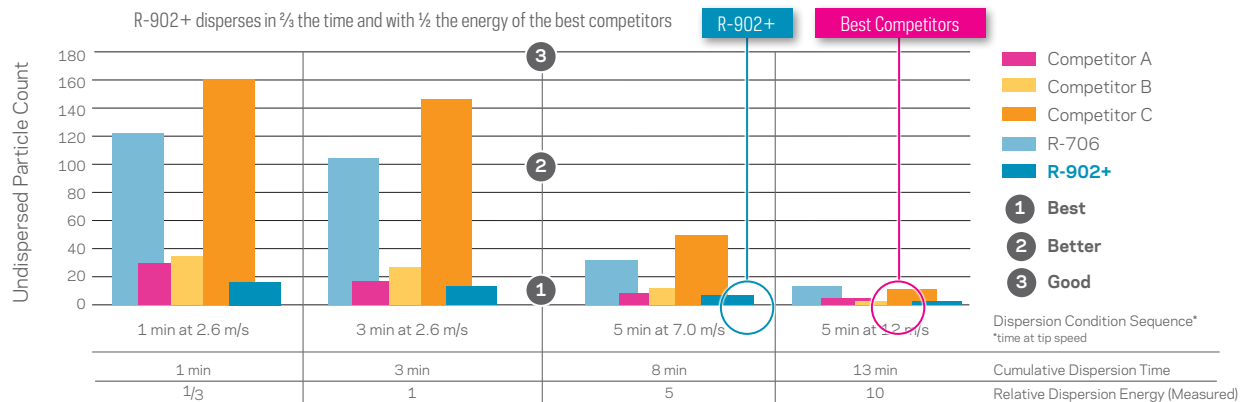
Figure 1. Ti-Pure™ R-902+ Delivers Total Value*

Ti-Pure™ R-902+ has great balance among key properties for coatings.



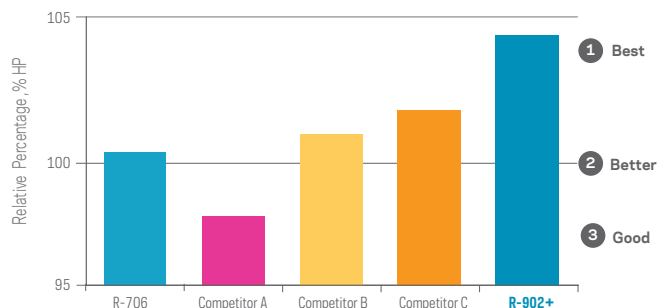
*Performance attribute scales expanded to illustrate relative pigment differences

Figure 2. Ti-Pure™ R-902+ Disperses Easily in Solvent borne Alkyds — Low Energy Dispersion in Long Oil Alkyd



For more information, visit tipure.com

Figure 3. Ti-Pure™ R-902+ Provides Best Hiding Power — Average Relative Hiding Power*



*Eight different coatings

Excellent coating coverage may allow coating producers flexibility to improve coating performance or reduce raw material costs.

Figure 4. Ti-Pure™ R-902+ Allows Waterborne Dispersion Time and Energy Savings

Competitor A: mixed in acrylic emulsion 20 minutes at 1000 rpm
Competitor A: mixed in acrylic emulsion mixed 40 minutes at 1000 rpm
R-902+: mixed in acrylic emulsion 20 minutes at 1000 rpm



Even after mixing twice as long, Competitor A still not dispersed as well as R-902+. R-902+ disperses much better than Competitor A with low energy mixing.