

TiO₂ for Rigid PVC Applications

When extended service life is required

Exterior applications demand ultimate durability to protect against the ravages of nature's elements. It is a tough challenge to find the salient ingredient to lasting beauty and superior weatherability.

Rutile titanium dioxide can provide maximum protection for extended outdoor service life. However, not all grades of TiO₂ are created equal.



Ti-Pure R-105 Titanium Dioxide



Ti-Pure R-105—for UV protection while retaining gloss and whiteness to keep your window profiles looking shiny and new.

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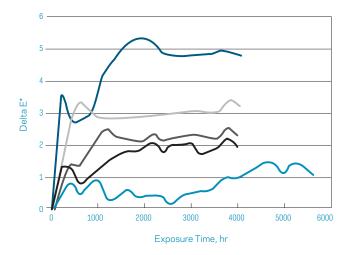
Ti-Pure™ R-105 for Rigid PVC Applications

For durable PVC (polyvinyl chloride) applications, Ti-Pure™ R-105 has the perfect combination of weatherabiliy, optics and processibility to meet the most exacting requirements.

Consistent color, excellent weathering and superior bulk flow properties ideal for automatic feeding systems are critical to a rigid PVC (polyvinyl chloride) manufacturer and the choice of ${\rm TiO}_2$ plays a decisive role.

Ti-Pure™ R-105 is designed to deliver exceptional durability and consistent color performance. Retention of original gloss helps keep products looking new longer and Ti-Pure™ R-105 helps maintain the "shine".

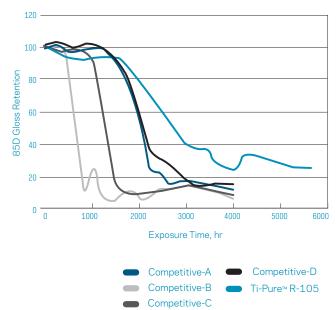
Figure 1: Xenon Arc Exposure Test—Delta E



*Represents the degree of discoloration.

A lower delta E indicates less discoloration.

Figure 2: Xenon Arc Exposure Test—85D Gloss Retention



Although titanium dioxide is not inherently an easy material to handle and transport, the surface treatment of ${\rm TiO_2}$ can make a significant improvement to the bulk handling. Ti-Pure^{IM} R-105 is the clear winner in this arena and may also provide a processing rate advantage for the manufacturer.

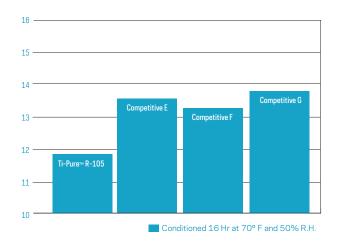
Ti-Pure™ R-105 titanium dioxide has been specifically designed to achieve:

- Maximum weathering resistance
- Bright, neutral whites
- Superior quality consistency
- Superior bulk flow properties which make it ideal for automatic feeding systems

The Powder Flowability Index, also known as the Rat Hole Index, is measured by a Johanson Hang-Up Indicizer. The lower the Powder Flowability Index, the better the flowability. Titanium dioxide grades with a Powder Flowability Index of 13.5 or lower are suitable for bulk storage in silos (Figure 3).



Figure 3: Powder Flowability Index







Ti-Pure[™] R-105 — Request Your Sample Today!

Ti-Pure™ R-105 titanium dioxide — for rigid PVC applications that require extended service. It is available in 25 kg polyethylene bags to eliminate fiber contamination from paper bags. It is also available in one metric tonne flexible intermediate bulk containers where larger volumes are processed.

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