Ti-Pure™ is the difference in ABS systems for appliances.

Ti-Pure™

R-350 Titanium Dioxide

Chemours™

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Ti-Pure™ R-350

Acrylonitrile butadiene styrene (ABS), used in appliances, is a plastic that has added dimensions of performance. The blending of different polymer phases gives ABS a balance of toughness, mechanical strength, temperature resistance, ease of molding, and a high quality surface finish. The unique blending of ABS requires a different kind of TiO_2 that can maintain the balance of performance attributes while adding a clean, bright white finish that lasts. Ti-Pure™ R-350 for appliances defines that difference.

Ti-Pure™ R-350 unique blend of attributes which keeps the appliance looks newer for life, such as:

- **Brighter, cleaner white for initial color with a blue undertone**
- **Superior thermal stability**
- **Excellent UV-stability**
- **Minimal impact on mechanical properties**

Ti-Pure™ R-350 titanium dioxide is a bright, white pigment made from our proprietary chloride manufacturing process, designed to create a high purity pigment. It is specifically formulated for excellent performance in the most demanding plastic applications.

With its unique combination of functionalities, Ti-Pure™ R-350 helps retain the mechanical properties ABS applications demand while providing maximum opacity and a brilliant white color. Innovative Ti-Pure™ technology gives appliances an enduring new look that differentiates them from the competition.

Appearance

Ti-Pure™ R-350 has a blue undertone that offsets yellow-tint that appears in ABS formulations after processing. This blue undertone ensures that the appliance has a cleaner, pure blue-white color that does not yellow or fade. Ti-Pure™ R-350 is the grade of choice to achieve the cleanest initial color in a wide variety of ABS compounds.

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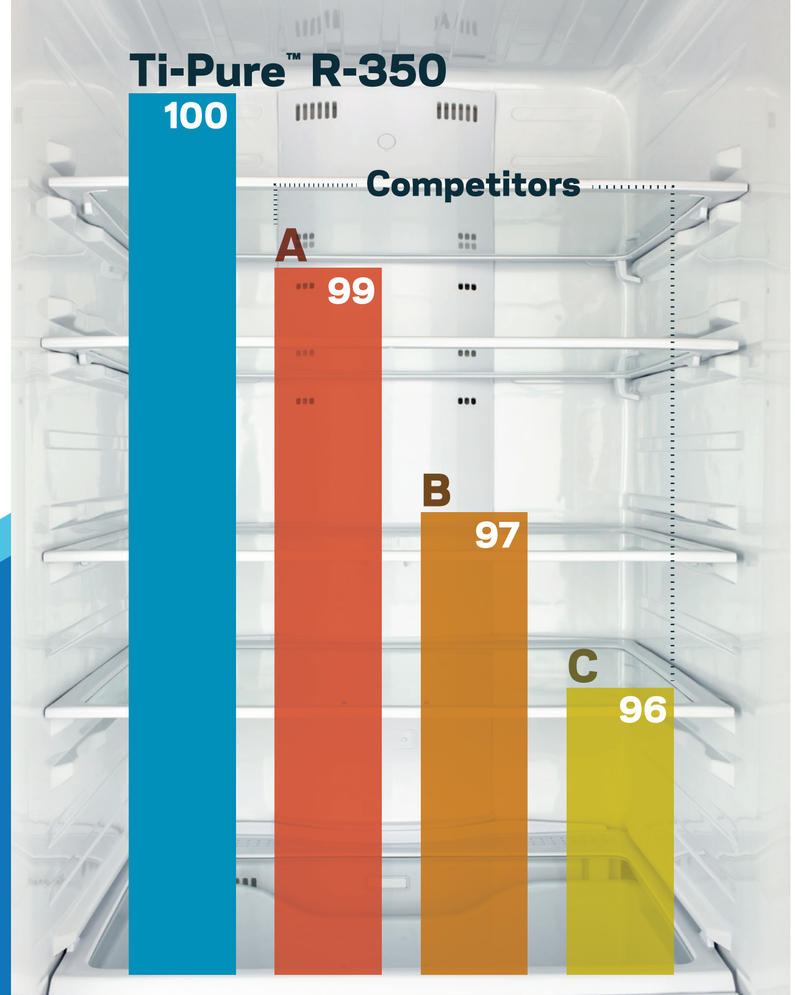


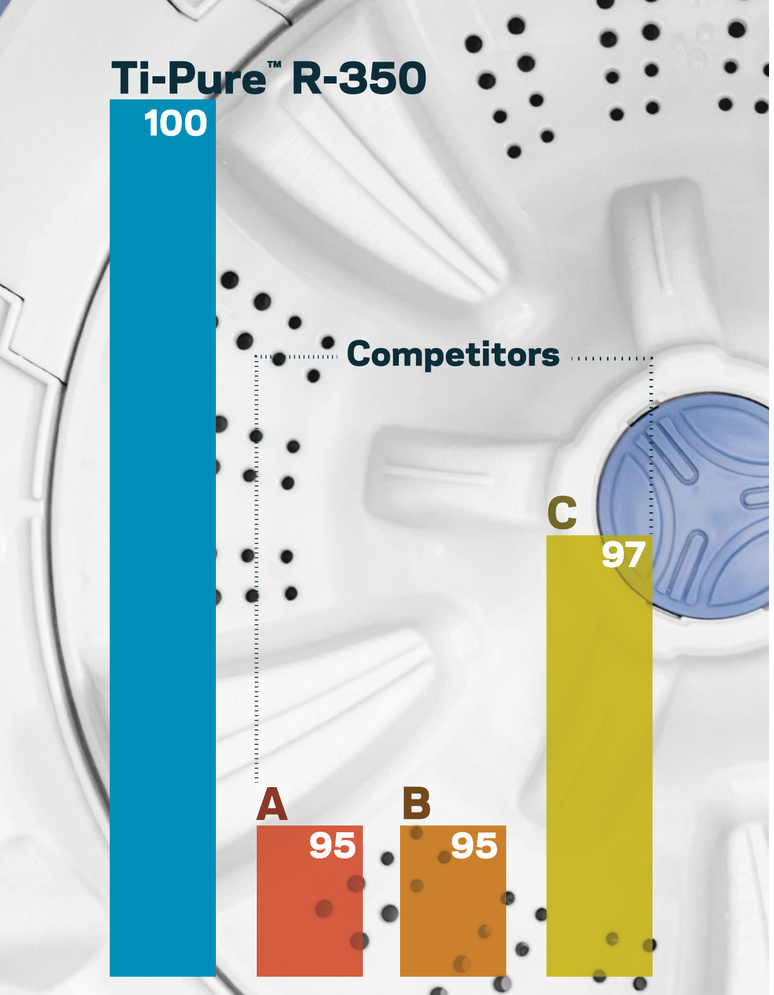
Better Looking From Day One

Overall, Ti-Pure™ R-350 provides the best combination of whiteness, brightness and glossiness, helping to deliver new appliances that stand out from the competition.

With Ti-Pure™ R-350 as a benchmark, we've compared and averaged performance scores in whiteness and gloss to yield an aggregate performance measure.

Figure 1: Ti-Pure™ R-350 Initial Color

Testing included measure of neutralization of initial yellowness of ABS resin.



Designed to Take the Heat

Ti-Pure™ R-350 provides superior color and gloss stability during oven aging, demonstrating the ability to help appliances in use look newer longer.

With Ti-Pure™ R-350 as a benchmark, we've compared and averaged performance scores in whiteness and gloss to yield an aggregate performance measure.

Figure 2: Oven Aging Thermostability

Testing included color stability testing during oven aging @ 65° C and gloss stability testing during oven aging @ 90° C.

Color Stability for Compounding and Thermoforming Operations

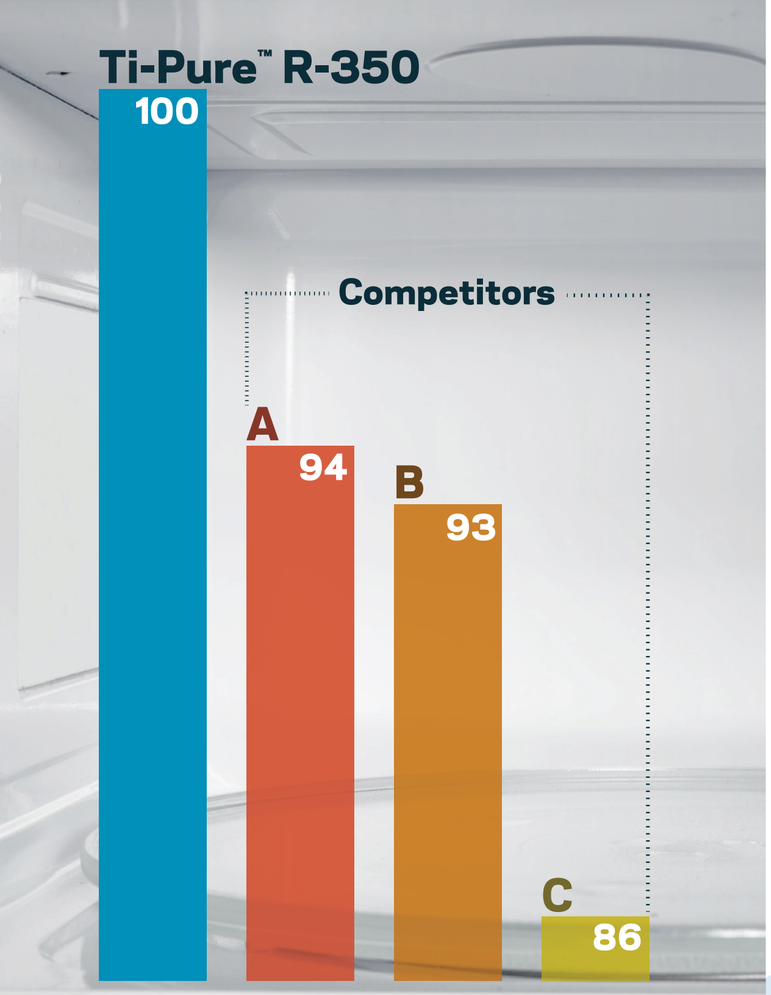
Ti-Pure™ R-350's innovative technology minimizes appearance changes due to heat exposure in the appliance where it's used. Additionally, Ti-Pure™ is able to give excellent thermal stability during processing. No matter where Ti-Pure™ R-350 is exposed to high temperatures, it provides resistance to yellowing and aging and gives a bright, new look that doesn't fade.

Color Stability For Indoor Applications

Ti-Pure™ R-350 for appliances was made to maintain a new-for-life look despite UV light exposure.

The Ti-Pure™ technology allows ABS polymer systems containing R-350 to resist decomposition under frequent and consistent ultraviolet bombardment. Ti-Pure™ R-350 demonstrates excellent bright white color stability for indoor use, keeping appliances beautiful for their entire service life.

Ti-Pure™ R-350 for appliances was made to maintain a new-for-life look despite UV light exposure.



Designed to Perform Under the Lights

Ti-Pure™ R-350 provides excellent color and gloss stability under UV exposure, demonstrating the ability to help appliances look newer longer by resisting degradation from both natural and artificial light.

With Ti-Pure™ R-350 as a benchmark, we've compared and averaged performance scores in whiteness and gloss to yield an aggregate performance measure.

Figure 3: UV Color Stability

Testing included color and gloss stability during Xenon arc exposure.

The Right Choice, for Every Reason

Ti-Pure™ R-350 provides the best overall performance across the life of the product in white ABS appliance and E&E applications.

	Initial Color	Initial gloss	Long Term Thermo-stability *Color*	Long Term Thermo-stability *Gloss*	Indoor Durability *Color*	Indoor Durability *Gloss*
TI-PURE™ R-350	⬢	⬢	⬢	⬢	⬢	⬢
COMPETITOR A	⬢	⬢	⬡	⬡	⬢	⬢
COMPETITOR B	⬡	⬢	⬢	⬢	⬢	⬢
COMPETITOR C	⬡	⬢	⬢	⬢	⬡	⬢

⬢ Superior ⬢ Average ⬡ Limited

Figure 4: Ti-Pure™ R-350 provides the optimal blend of performance in ABS

Ti-Pure™ R-350 — request your sample today!

Ti-Pure™ R-305 titanium dioxide — is the pigment of choice for ABS applications. Available in 25 kg bags and 1 metric (1000 kg) tonne flexible intermediate bulk containers. If you need additional information or would like to request a sample, please visit our website or contact your local representative.

For more information or to request a sample, visit tipure.com

To learn more about how you can make a difference with Ti-Pure™, email Lingqing.Peng@chemours.com

Chemours™

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