

# Ti-Pure™ Grade Selection Guide for Plastics

Grade	R-101	R-103	R-104	R-105	R-350	R-960
-------	-------	-------	-------	-------	-------	-------

## Polymer System and Application

### Polyethylene/Polypropylene

Injection Molding	●	◆	◆		●	
Blow Molding	●	◆	◆		●	
Blown Film	●	●	◆		◆	
Extruded Sheet	●	●	●		◆	
High-Temperature Cast Film or Extrusion Coating	●		◆		●	
Exterior, Semi-durable		●			◆	
Exterior, Durable				◆		●
Liquid Colorants		◆	●			●

### PVC

Interior, Rigid	●	●	●		◆	
Exterior, Chalking	◆	●				
Exterior, Non-chalking				◆	●	◆
Flexible, Durable		●		◆	●	◆
Plastisol		◆	●	●		●
Lead-Stabilized Systems		●		◆		●
Pipe	●	◆		●		

### ABS

ABS	●	●	●	●	◆	●
Polystyrene	●	●	◆		●	●
Polycarbonate			●		●	
Polyamide	●	●	◆	●		
Polyester	◆	●	◆	●		
Biodegradable/Compostable			◆		◆	
Thermoset (PES)	●	◆	●			●

◆ **Highly Recommended**      ● **Grade Suitable for Application**

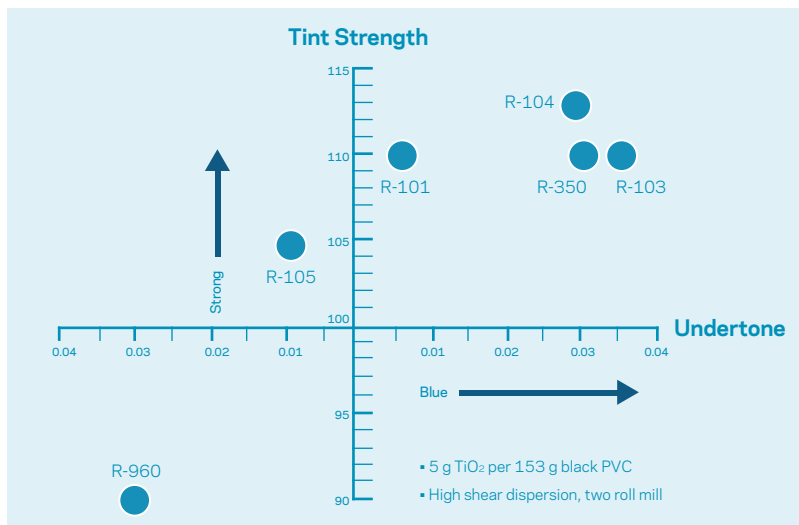
1. For regulatory statements and voluntary certifications (food contact, NSF and others) please go to [www.tipure.com/en/support/regulatory](http://www.tipure.com/en/support/regulatory)

# Plastics Grades TiO<sub>2</sub> Physical Properties

Grade	R-101	R-103	R-104	R-105	R-350	R-960
<b>Property</b>						
TiO <sub>2</sub> wt%, min.	97	96	97	92	95	89
Alumina, wt%, max.	1.7	3.2	1.7	3.3	1.7	4.0
Silica, wt%, max.	N/A	N/A	N/A	3.5	3.0	6.5
Organic Treatment	hydrophilic	hydrophilic	hydrophobic	hydrophobic	hydrophobic	N/A
Color CIE L*, min.	97.9	97.8	97.5	98.5	98.5	98.5
Specific Gravity	4.2	4.1	4.2	4.0	4.1	3.9
Median Particle Size, μm	0.29	0.22	0.22	0.31	0.22	0.35
Vinyl Tint Strength	110	110	113	104	110	90
Vinyl Undertone	0.005	0.035	0.030	-0.010	0.030	-0.030
pH	8.5	6.5	N/A	N/A	N/A	7.4
Resistance, min.	2.0	4.0	N/A	N/A	N/A	4.0

Notes: Unless noted, values are typical. Resistance is reported as the minimum value in k chm-cm. Test methods used to determine the values reported are available from your TiO<sub>2</sub> sales or technical services representative.

**Figure 1.** Titanium Dioxide Plastics Optical Properties



**CAUTION:** Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative. These products may not be directly added to food, pharmaceuticals, cosmetics, or cigarette papers/filters for tobacco products.

For medical emergencies, spills, or other critical situations, call (844) 773-2436 within the United States. For those outside of the United States, call (302) 773-1000. The information set forth herein is furnished free of charge and based on technical data that Chemours believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Because conditions of product use are outside our control, Chemours makes no warranties, express or implied, and assumes no liability in connection with any use of this information. As with any material, evaluation of any compound under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents. NO PART OF THIS MATERIAL MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM OR BY ANY MEANS ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF CHEMOURS.

For more information, visit [www.titanium.chemours.com](http://www.titanium.chemours.com)

© 2022 The Chemours Company FC, LLC. Ti-Pure™ and any associated logos are trademarks or copyrights of The Chemours Company FC, LLC. Chemours™ and the Chemours Logo are trademarks of The Chemours Company.



C-XXXXX-X