

Product Data Sheet

Rutile Titanium Dioxide R-218 - Plastics / Masterbatch Grade

Description

Description	Rutile Titanium Dioxide R-218 is a high-purity rutile grade with light/organic surface treatment (rather than heavy inorganic coating), optimised for dispersion, heat stability and low yellowing in plastics processing. It is the preferred grade for masterbatch, PVC, PE, PP and engineering plastics requiring high whiteness and processing stability at elevated temperatures.
Applications	White and colour masterbatch manufacturing PVC profiles, pipes and rigid/flexible film Polyethylene (PE) and polypropylene (PP) compounding Engineering plastics and fibre-reinforced composites
Grade	Plastics/Masterbatch Grade (R-218 equivalent)
CAS No.	13463-67-7

Key Benefits

1. High TiO₂ core purity for maximum opacity per unit loading in polymer systems
2. Organic surface treatment optimised for polymer dispersion and reduced screw wear
3. Excellent heat stability with low yellowing at typical processing temperatures (up to ~280–300°C)
4. Fine, narrow particle size distribution for consistent masterbatch performance
5. Low volatile content suitable for extrusion and injection moulding

Chemical Analysis & Physical Data

Typical Specification

Parameter	Unit	Specification
TiO2 Content	wt%	Min. 95.0
Al2O3 (Light Coating)	wt%	0.5 – 1.5
Surface Treatment	–	Organic (polyol/siloxane) for polymer dispersion
Moisture (105°C)	wt%	Max. 0.3
Oil Absorption	g/100g	14 – 18
Specific Gravity	g/cm ³	3.9 – 4.1
Average Particle Size	micron	0.20 – 0.30
Heat Stability (Yellowing at 280°C)	–	Low – suitable for standard PE/PP/PVC processing
Appearance	–	White, free-flowing powder

Packaging

Packaging 25 kg Kraft Paper Bags (PE-lined)
500 kg / 1,000 kg Jumbo Bags (FIBC)
Custom packaging available on request.

Storage & Handling

1. Store in a dry, covered warehouse away from moisture
2. Keep bags sealed until point of use to prevent contamination and moisture pickup
3. Avoid stacking beyond recommended pallet heights to prevent bag damage
4. Stack on pallets, away from direct ground contact
5. Use appropriate PPE (dust mask, goggles) when handling – avoid dust generation

Quality Assurance

1. Every batch is tested against the specification above before dispatch
2. A batch-specific Certificate of Analysis (COA) accompanies each shipment, reporting TiO₂ content, oil absorption and particle size against this TDS
3. COA available on request prior to shipment for buyer pre-approval
4. Third-party inspection (SGS/Intertek) can be arranged on request for regulated-market shipments

Disclaimer: The information provided in this document is based on our current knowledge and is intended as a general guide. Ochnology Solution Pvt. Ltd. reserves the right to modify specifications without prior notice. Buyers are advised to conduct their own testing for specific applications. A batch-specific Certificate of Analysis (COA) is available on request for each shipment.