

DuPont™ R-796

RUTILE LAMINATE GRADE TITANIUM DIOXIDE

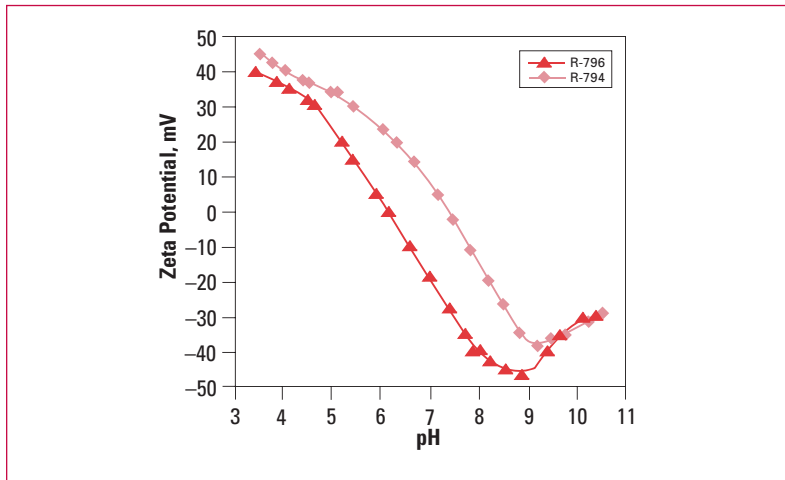
Product Description

R-796 is a versatile, high brightness rutile pigment manufactured using the chloride process. R-796 provides excellent opacity and retention and is suitable for use in high and low pressure décor papers, decorative foils, and print-base applications.

Key Features

- Consistent performance across a variety of laminate paper types and papermaking water chemistries
- High brightness with neutral, blue-white shade
- Self-dispersing characteristics in alkaline aqueous systems
- Outstanding protection against paper UV yellowing and graying
- Superior product consistency using the chloride manufacturing process

Figure 1. Zeta potential of R-796 compared to R-794 as a function of pH, titrated from alkaline to acidic conditions.



R-796 Typical Properties

Color L*	100.0
Color b*	2.1
Refractive Index	2.7
Isoelectric Point	6.0
pH, ISO Standard-787	8.0
Sieve Residue (325 mesh), %	0.03
UV Light Stability (ΔE)†	<1.0
TiO ₂ Content, %	>92
Mean Particle Size, μm	0.3

† 3-hr exposure to UV light

Packaging

R-796 is available in 25-kg bags with 40 bags per pallet, 500-kg semi-bulk containers with two per pallet, and 1,000-kg semi-bulk containers with one per pallet. The 25-kg bags are made from low-sized, fully bleached high-brightness paper that can be repulped and recovered in the paper mill. The semi-bulk containers are made of woven polypropylene and cannot be repulped.



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TiO₂ for Paper

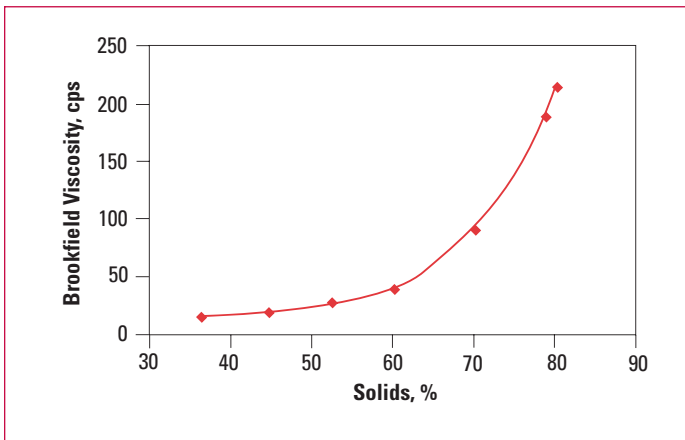


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Technical Features

The surface chemistry of R-796 makes this grade compatible with a wide range of water chemistries, offering excellent retention properties. These same surface properties allow the formulation of self-dispersing, stable slurries with solids as high as 80% through pH control, without requiring the addition of any dispersant.

Figure 2. R-796 low-shear viscosity as a function of solids %, dispersed in deionized water with pH adjusted to 9.0 using sodium hydroxide.



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