



TYTAN Titanates



Industrial Coatings

BORICA

TYTAN™ Titanates/Zirconates for Industrial Metal Coatings

TYTAN™, manufactured by Borica Co., Ltd. from Taiwan, is the leading brand of additives for high performance industrial metal coatings. Borica is committed to providing producers and developers of industrial coatings with a complete range of high quality products, cutting edge technology, good service and competitive prices. Borica offers the most comprehensive product range of environmentally friendly titanate adhesion promoters and cross-linkers to the global coating industry.

TYTAN™ titanates substantially improve adhesion to metallic substrates through covalent bonding, cross-linking the functional groups of a wide variety of resin binders and acting as coupling agents for pigments and fillers. This allows formulators to develop coatings for a wide variety of binder

systems that have the necessary adhesion and anti-corrosive properties to withstand the toughest requirements of today's general industrial, chemical and transport industries.

For ambient cure coatings, heat resistance can be improved to withstand temperatures of 250°C (500°F). For baked coatings the TYTAN™ products will both engage in additional cross-linking and also have a catalyzing effect on the cross-linking of the resin, resulting in coatings that can resist temperatures of up to 650°C (1200°F).

TYTAN™ Organo-Titanates are particularly suitable for improving the properties of coatings with silicone based binders, due to the synergistic chemistry of titanates and silicones.

TYTAN™ range for Industrial Coatings

Product Name	Identification	Suitability	Benefits
TYTAN™ ET	Tetra Ethyl Titanate CAS: 3087-36-3 EC: 221-410-8	Resin modifier Sol-gel coatings	High Ti-content and reactivity Ambient temperature curing for silicone coatings Improved corrosion resistance
TYTAN™ TIPT	Tetra iso-Propyl Titanate CAS: 546-68-9 EC: 208-909-6	Silicone or 2K coatings Glass coatings Air dry coatings Sol-gel coatings	High Ti-content and reactivity Ambient temperature curing for silicone coatings Improved corrosion resistance
TYTAN™ TNBT	Tetra n-Butyl Titanate CAS: 5593-70-4 EC: 227-006-8	Silicone or 2K coatings Glass coatings Air dry coatings Sol-gel coatings	High Ti-content and reactivity Ambient temperature curing for silicone coatings Improved corrosion resistance
TYTAN™ EHT	Titanium Acetylacetonate CAS: 17927-72-9 EC: 241-866-1	Silicone or 2K coatings Glass coatings Air dry coatings	Ambient temperature curing for silicone coatings Improved corrosion resistance
TYTAN™ PBT	Polybutyl Titanate CAS: 162303-51-7 EC: 500-687-1	Air dry coatings Heat resistant paint	Very high Ti-content High performance binder
TYTAN™ TAA	Titanium Acetylacetonate CAS: 17927-72-9 EC: 241-866-1	Resin modifier Cross-linker Glass coatings	High reactivity Strong adhesion to difficult surface Improved coupling effect
TYTAN™ X85	Titanium Acetylacetonate CAS: 94233-27-9 EC: 304-059-6	Resin modifier Cross-linker	Improved corrosion resistance Improved coating uniformity Improved adhesion/coupling
TYTAN™ TET	Triethanolamine Titanate CAS: 36673-16-2 EC: 253-153-2	Solvent and water based Cross-linker Resin modifier	Stable in solvent inks Improved adhesion and cross-linking Environmentally friendly
TYTAN™ AQ33	Aqueous Titanium Chelate CAS: 65104-06-5 EC: 265-409-0	Wash primer with pH between 7 and 8	Improved cross-linking Environmentally friendly
TYTAN™ AQ5000	Aqueous Titanium Chelate	Wash primer with pH 2	Improved cross-linking Environmentally friendly
TYTAN™ TNPZ	Tetra n-Propyl Zirconate CAS: 23519-77-9 EC: 245-711-9	Resin modifier Sol-gel coatings	High Zr-content and reactivity Ambient temperature curing Improved corrosion resistance
TYTAN™ TNBZ	Tetra n-Butyl Zirconate CAS: 1071-76-7 EC: 213-995-3	Resin modifier Sol-gel coatings	High Zr-content and reactivity Ambient temperature curing Improved corrosion resistance
TYTAN™ AQZ30	Triethanolamine Zirconate CAS: 101033-44-7 EC: 309-811-7	Solvent and water based cross-linker Resin modifier	Dual phase flexibility Very strong ionic bonding to metallic substrates

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