TYTAN Titanates

Industrial Coatings

BORICA

TYTAN™ Titanates/Zirconates for Industrial Metal Coatings

TYTAN™, manufactured by Borica Co., Ltd. from Taiwan, is a leading range 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 strongly 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.

In addition to our TYTAN™ range suitable for solvent based binder systems we now also introduce our:

- TYTAN™ AQ33 and AQZ30 for water based coatings

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 ▪ 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™ 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™ 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
TYTAN™ S6	Di-iso-Butoxy Titanium Chelate (Ethylacetoacetate Titanate) CAS: 83877-91-2 EC: 281-161-1	▪ Silicone or 2K coatings ▪ Glass 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 ▪ 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	▪ High Ti-content and reactivity ▪ Ambient temperature curing ▪ Improved corrosion resistance
TYTAN™ EHT	Tetra 2-Ethylhexyl Titanate CAS: 1070-10-6 EC: 213-969-1	▪ Silicone or 2K coatings ▪ Glass coatings ▪ Air dry coatings	▪ Ambient temperature curing ▪ Improved corrosion resistance
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™ 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™ TET	Triethanolamine Titanate CAS: 36673-16-2 EC: 253-153-2	▪ Solvent and water based cross-linker ▪ Resin modifier	▪ Dual phase flexibility ▪ Very strong ionic bonding to metallic substrates
TYTAN™ AQ33	Aqueous Titanium Chelate CAS: 65104-06-5 EC: 265-409-0	▪ Wash primer with pH between 6.5 and 8.5	▪ Improved adhesion and coupling ▪ Improved cross-linking ▪ Environmentally friendly

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