



## Inks



## TYTAN™ Adhesion Promoters for Inks

TYTAN<sup>TM</sup>, manufactured by Borica Co., Ltd. from Taiwan, is a leading range of adhesion promoters and cross-linkers for the global ink manufacturing industry. With its roots in the ICI tradition, Borica is committed to providing printing ink producers and the packaging industry, with a complete range of high quality products, good service and competitive prices.

The current range of TYTAN™ products strongly improves adhesion of printing inks to flexible and metal packaging films while enabling them to withstand heat sealing, freezer storage, abrasive handling, solvents, acids, greases during printing,

packaging, storage and handling by consumers. Our range includes TYTAN<sup>TM</sup> AP100, the low odor and low color alternative, fully registered in Europe and the USA.

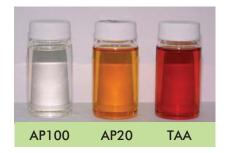
In addition to our TYTAN™ range suitable for solvent based flexographic and gravure inks, we now also introduce our:

- TYTAN™ AQ33 and AQZ30 for water based inks
- HYMER™ 39 for energy-cured inks

As such, Borica can offer the most comprehensive product range of environmentally friendly adhesion promoters and cross-linkers to the global ink industry.

## TYTAN™ range for Inks

Product Name	Identification	Suitability	Benefits
TYTAN™ ZPP	Zirconium Propionate CAS: 84057-80-7 EC: 281-897-8	<ul><li>Flexographic/Gravure</li><li>NC/PA and NC/PU inks</li><li>Flexible packaging film</li></ul>	<ul> <li>No color influence to inks</li> <li>Strong adhesion improvement</li> <li>Economic transportation</li> </ul>
TYTAN™ AQZ30	Triethanolamine Zirconate CAS: 101033-44-7 EC: 309-811-7	For all waterborne inks	<ul> <li>Stable in aqueous inks</li> <li>Strongly improved adhesion and cross-linking</li> <li>Environmentally friendly</li> </ul>
TYTAN™ TAA	Titanium Acetylacetonate CAS: 17927-72-9 EC: 241-866-1	<ul><li>Flexographic/Gravure</li><li>NC/PA and NC/PU inks</li><li>Flexible packaging film</li></ul>	<ul> <li>Strong adhesion improvement</li> <li>Non-food contact applications</li> </ul>
TYTAN™ AP20	Titanium Acetylacetonate with ethanol & isopropanol CAS: 17927-72-9 EC: 241-866-1	<ul><li>Flexographic/Gravure</li><li>NC/PA and NC/PU inks</li><li>Flexible packaging film</li></ul>	<ul> <li>Not sensitive to crystallization</li> <li>Improved stability</li> </ul>
TYTAN™ AP100	Titanium Phosphate Complex CAS: 109037-78-7 EC: 401-100-0	<ul><li>Flexographic/Gravure</li><li>NC/PA and NC/PU inks</li><li>Flexible packaging film</li></ul>	<ul> <li>Acetylacetonate free</li> <li>Low odor, low color</li> <li>Improved pigment dispersion</li> <li>Improved gloss of cured ink</li> </ul>
TYTAN™ AQ33	Aqueous Titanium Chelate CAS: 65104-06-5 EC: 265-409-0	For all waterborne inks of pH between 6.5 and 8.5	<ul> <li>Stable in aqueous inks</li> <li>Strongly improved adhesion and cross-linking</li> <li>Environmentally friendly</li> </ul>
HYMER™ 39	Acidic Phosphate Modified Methacrylate CAS: 32435-46-4 EC: 251-040-2	For UV/EB curing inks on metallic substrates	<ul> <li>Improved curing of energy-cured inks and coatings</li> <li>Improved adhesion on metallic substrates</li> </ul>



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