

## **Technical Data Sheet**

# **TiLink<sup>™</sup> TCA-AA**

bis(pentane-2,4-dionato-O,O')bis(alkanolato)titanium

## **Synonyms**

Di-isopropoxy titanium bis (2, 4-pentanedionate)

Di-isoporpoxy titanium acetylacetonate

Bis(acetylactonate) diisopropoxide titanium

#### Description

**TiLink**<sup>™</sup> titanate **TCA-AA** is a titanium chelate with acetylacetone as chelating agent with CAS No. 17927-72-9. It is the equivalent product to Tyzor AA from DuPont.

#### **CAS Number**

17927-72-9

Molecular Formula and Molecular Structure			
$C_{16}H_{28}O_6Ti$		0° TI++	

## **Equivalent Product**

**Tyzor AA** from DuPont (now Dorf Ketal)

T-50(TAA) from Nippon SODA CO.,LTD

Typical Properties		
Index	Value	
Appearance	Orange red, viscous and clear liquid.	
Titanium content, %	9.9	
Specific Gravity (p <sub>25</sub> ), g/cm <sup>3</sup>	0.99	



Viscosity (25°℃), mPa.s	10
Pour Point, ℃	0
Solubility	Miscible with most organic solvents, aqueous acetone and dilute acids.

## **Applications and Performance**

 $\mathsf{TiLink}^\mathsf{TM}$  titanate  $\mathsf{TCA-AA}$  is an adhesion promoter and cross-linker that are essential additives for flexographic and gravure printing inks which are widely used at flexible packaging industry.

Flexible packaging has become an important component of product marketing. Packaging materials usually include a non-absorbing foil based on polyolefin (polyethylene, polypropylene, or co-extruded polypropylene), polyester, polyamide, cellophane, PVC, metallized plastic, or aluminum. Printing on these foils can help to motivate consumers to purchase products, provide information, and offer decorative enhancement.

Typical print platforms for flexible packaging are flexography and rotogravure processes that require specialized inks. The type of ink most often used contains nitrocellulose (NC) as the primary binder.

For flexographic and gravure package printing, **TiLink**<sup>TM</sup> titanate **TCA-AA** helps to improve the final product properties. This is achieved by **TCA-AA** acting as a cross-linker for the binder and as an adhesion promoter between the ink and substrate, which provides the following benefits:

- Improved adhesion of the ink to the substrate
- Enhanced curing
- Improved chemical, solvent, and water resistance
- Enhanced heat resistance
- Decreased drying times or lower cure temperatures
- Increased lamination bond strength

#### Packing

This product is available in 20kg plastic pail, 200L steel or plastic drums and 1000L immediate bulk container.

#### Storage and Shelf Life

Should be stored in dry, cool, ventilated room; keep away from water, moisture, high



temperature and fire. This product has a shelf life of at least 12 months if stored in tightly closed original container at room temperature.

If this product is kept beyond the shelf life recommend on the product label, it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.

