



Tyzor® OGT

Organic Titanate

DESCRIPTION

Tyzor® OGT, a 100% active, reactive organic alkoxy titanate, is a colorless to yellowish organic liquid which is sensitive to moisture. While still a highly reactive titanate, Tyzor® OGT is less sensitive to moisture than Tyzor® TPT and Tyzor® TnBT.

FUNCTIONALITY

Tyzor® OGT acts as a Lewis acid catalyst in processes such as esterification, transesterification, condensation, addition, etc.

Tyzor® OGT can effect adhesion promotion and cross-linking of polymers, or form polymeric titanium dioxide layers used as a binder or coating.

APPLICATIONS

Reaction Catalyst

Tyzor® OGT is used as a catalyst for esterification, transesterification, condensation, and addition reactions. Typical reaction products include, (meth)acrylic esters, polyester, plasticizer, various esters, polyurethanes, etc. The benefits of using Tyzor® OGT include elimination of by-products, increased yield, easy work-up, low catalyst concentration, and low toxicity.

Coatings

Glass, metals, fillers, and pigments can be treated with Tyzor® OGT to give increased surface hardness, adhesion promotion, scratch resistance, coloring effects, heat and light reflection, iridescence, and corrosion resistance.

Paint and Sealant Additive

Tyzor® OGT can be used as an additive in paints and sealants to crosslink -OH or -COOH functional polymers or binders, promote adhesion, or act as a binder itself.

HOW TO USE

Tyzor® OGT is usually formulated with the other ingredients in catalysis, cross-linking, paint or sealant applications. The titanate is often added as the last ingredient to prevent undesired pre-reactions with water or other components. For adhesion promotion or surface modification applications, Tyzor® OGT may also be applied as a primer from dilute solution.

In coating applications, thin, polymeric TiO₂ layers may be formed via thermal or hydrolytic processes.

In sol-gel applications, total or partial hydrolysis of Tyzor® OGT, typically in combination with other metal alkoxides, affords metal oxide systems for use as a binder or coating.

TYPICAL PROPERTIES**PROPERTY****TYPICAL VALUE**

TiO ₂ Content	ca. 12.7 %
Active Content	ca. 100 %
Color	Colorless to Yellow
Density (20°C)	ca. 1.03 g/ml
Viscosity (20°C)	ca. 3500 mPa*s
Pour Point	ca. -55 °C
Flash Point	ca. 55 °C
Solubility in Solvents	Miscible in most organic solvents
Solubility in Water	Decomposes

**GLOBAL REGISTRATION
INFORMATION**

Please refer to “Tyzor Global Registration Information” Bulletin

SAFETY and HANDLING

For specific safety, handling and toxicity information, please refer to the current Material Safety Data Sheet.

TYPICAL SHELF LIFE

2 years

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