

eco-friendly POTASSIUM TITANATE TOHO MATERIAL CO.,LTD.

 TOHO TITANIUM CO.,LTD. GROUP

1. Introduction of TOHO MATERIAL CO., LTD.

Establishment	:	April 1 st , 2009
Capital	:	JPY200million
Description of Business	:	Production and sales of Potassium Titanate and other inorganic materials.
Headquarters	:	Chigasaki city, Kanagawa, Japan
Manufactory	:	Toki city, Gifu, Japan
Investing Company	:	Toho Titanium Co.,Ltd. (80%) Morimura Bros.,Inc. (15%) Nakashima Sangyo Co.,Ltd. (5%)
Production site	:	2 sites in Toki city, Gifu, Japan



The aerial photo of Gifu Manufactory

2. Features of the products

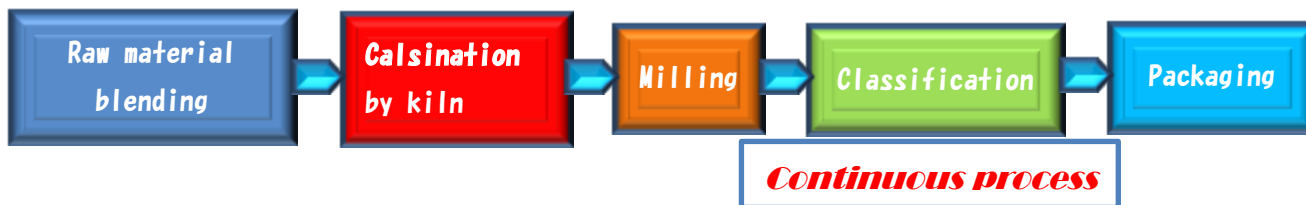
a) Chemical composition

Chemical composition of TOFIX series is all $K_2O \cdot 6TiO_2$. $K_2O \cdot 6TiO_2$, which is the most stable chemical structure at high temperatures among Potassium Titanates.

b) High performance

TOFIX series have good wear resistance and μ -stability. And TOFIX-SNR has high μ -level with good wear resistance.

3. Manufacturing process



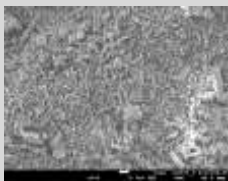
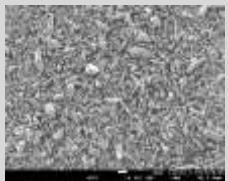
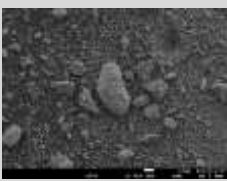

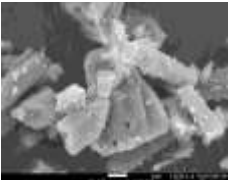
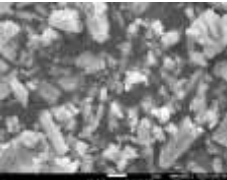
a) Unique process

The general manufacturing process for potassium titanate is wet process. But we adopt perfectly dry process to produce TOFIX series. As a result of the unique process, TOFIX series has several advantages.

b) Eco-friendly process

As a result of the unique process, our Gifu plant can produce TOFIX-S and TOFIX-SNR without waste material and waste water.

4. TOFIX-series (Main Products)

Name	TOFIX-P	TOFIX-S	TOFIX-SNR
Chemical composition	$K_2O \cdot 6TiO_2$	$K_2O \cdot 6TiO_2$	$K_2O \cdot 6TiO_2$
Color phase	White	White	Light yellow
Shape	Whisker	Powder	Powder
Melting point (°C)	1300-1350	1300-1350	1300-1350
SEM images (X500)			
SEM images (X10,000)			
Specific Surface Area (m ² /g) BET method	1.5-5.0	1.8-2.8	2.0-3.0
Tapping Density (g/cm ³)	0.35-0.55	0.85-1.20	0.90-1.30
Median Size (µm) Dynamic image analysis method	-	10-50	25-60
Loss on drying (%)	≤0.7	≤0.7	≤0.7
pH	10~12	9~12	9~12

TOFIX-S and SNR have been already registered in both TSCA/EPA and REACH/ECHA.

TOFIX-P,S and SNR are our main products. There is a wide selection to choose from.

Please contact us, if you would like to know more about some details.

Atsushi Kubota

Chemicals Dept. I

Chemicals Div.

Morimura Bros., Inc. Chemicals Div.

Toranomon Towers Office, 1-28, Toranomon 4-chome, Minato-ku, Tokyo Japan 105-8451

Phone: +81-3-3432-3530 Fax: +81-3-3432-3531 E-mail: kubota@morimura.co.jp