

Toho Titanium Green Procurement Guidelines

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Toho Titanium Company Limited

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1. Introduction

The Toho Titanium Group (hereinafter referred to as the "Toho Group"), a comprehensive titanium manufacturer, is engaged primarily in the titanium business, and also conducts an electro-ceramic materials business and olefin polymerization catalyst business by making use of technology and intermediate products from the titanium refining process.

Fully recognizing the effects these business activities have on the environment, the Toho Group is working on original measures to reduce environmental risks as well as to "use resources and technology effectively" and "reduce environmental loads," by improving yield and extraction rates, improving quality, process reduction, recycling, and energy conservation in all operation stages along with a basic environmental policy that allows the Toho Group to contribute to global environmental conservation through "reasonable and effective use of resources and technology."

To this end, the Toho Group has decided to promote green procurement and established the "Green Procurement Guidelines" based on the recognition that it is also essential to utilize materials and equipment by taking into consideration the reduction in environmental loads when procuring the materials and equipment necessary for business activities.

These Guidelines show "essential requirements (minimum requirement levels)" to be observed and "desired requirements (desired level)" to be taken into account when promoting green procurement. Failing to meet these "essential requirements" might make it necessary to cancel our business relationship with subcontractors, etc. The desired requirements" will be used for future reference in our procurement.

If standards other than those set forth in these Guidelines are required due to specification requirements for the materials and equipment, we will specify such standards in the purchase specifications and other documents which will be determined separately.

Also, please note that the green procurement standards are subject to subsequent changes in laws and regulations, and social trends.

We therefore would like to ask your cooperation with these Guidelines.

[Green procurement policy]

We will contribute to "creation of a sound material-cycle society," "prevention of global warming" and "promotion of 3Rs"* through green procurement efforts.

If the functions, prices and delivery periods of products to be procured are equivalent, we will evaluate the degree of environmental load reduction based on the "essential requirements" and "desired requirements" and procure those products that impose a lower environmental load.

* 3Rs = Recycle, Reduce and Reuse

2. Scope of Application

These guidelines cover the following materials and equipment at present.

(1) Facility materials (manufacturing facilities)

Facilities related to titanium manufacture, electronic materials and functional materials, and olefin polymerization catalysts

(2) Operational materials

All purchasing products "used for manufacturing titanium-related products, products related to electro-ceramic materials and functional materials and products related to olefin polymerization catalysts" and facility maintenance materials

(3) Office supplies

All materials and equipment used at the headquarters, branches, offices and other places of business

3. Requirements to Consider in Procurement

Essential Requirements

We will procure materials and equipment from suppliers that meet the following requirements. Suppliers are requested to submit confirmation to us that they meet the essential requirements.

(1) Essential requirements for suppliers

Our major consideration when determining which materials and equipment to procure is the degree to which the materials and equipment reduce environmental loads and whether the companies that are manufacturing and selling the materials and equipment are taking an active stance toward environmental conservation. We will examine the efforts made by the companies toward environmental conservation and procure materials and equipment from suppliers that meet the following conditions.

a) Creation of an environmental management system

Factories and offices which develop, manufacture, and sell materials and equipment are required to create an environmental management system.

Suppliers are required to effectively implement the ISO-14001 environmental management system or their own environmental management system through the PDCA cycle which includes the following steps:

- Establish environmental policies.
- Appoint an environmental management representative and set up an organizational structure for environmental management.
- Identify and comply with environmental laws and regulations.
- Establish and carry out environmental objects, targets and plans.
- Create a chemical substance management system.

- Conduct environmental education and training for employees.
- Periodically check the status of legal compliance and environmental activities.

b) Nonuse of banned substances in the manufacturing process

In the manufacturing process, suppliers must not use any banned substances that are separately specified by Toho Group.

Note) The banned substances are those specified in the ELV (End-of-Life Vehicle) (enforced from October 2000) in the EU, the RoHS (Restriction of Hazardous Substances) (enforced from July 2006) to regulate special hazardous substances included in electrical and electronic appliances, the REACH regulations (enforced from June 2007) for general molded products, and those which may induce ozone layer destruction and sick building syndrome.

c) Cooperation in a survey of contained chemical substances

Regarding the survey of chemical substances contained in materials and equipment, suppliers are required to submit to us a survey report on chemical substance contents (in the JGPSSI format). (JGPSSI: Japan Green Procurement Survey Standardization Initiative)

(2) Essential requirements for procuring materials and equipment

The materials and equipment to be procured are required to have low environmental loads.

To avoid environmental contamination and harm to human health, measures must be taken to prevent hazardous substances from being released when procured materials and equipment are used, scrapped, or disposed of. By ensuring that procured materials and equipment do not contain any substances that may cause damage to the environment or human health, the Toho Group intends to design more eco-friendly products and conduct more appropriate disposal activities.

The Toho Group will therefore procure only those materials and equipment that do not contain any substances we separately specify as banned substances.

The word "Contain" as used in these Guidelines means "intentionally containing banned substances." Although impurities, which are unavoidable are not considered as banned substances, the contents must not exceed the threshold level* of hazardous substances indicated in the "Guide for Banned Environment Impact Substances."

* Threshold level: the maximum level at which substances do not start to develop toxicity

4. Desired Implementation Requirements

Suppliers are requested to give us periodic reports on the following items for our future reference.

(1) Desired implementation requirements for suppliers

We ask suppliers to understand the commitment of the Toho Group to "creation of a sound material-cycle society," "prevention of global warming" and "promotion of 3Rs" and to implement these items as below.

a) Implementation of environmental assessment of materials and equipment

Suppliers are requested to perform environmental assessment of materials and equipment when designing the materials and equipment so as to reduce the environmental loads of the materials and equipment at the design stage.

The environmental assessment of materials and equipment is a preliminary assessment that takes environmental factors into consideration at the development stage based on environmental design concepts such as prevention of global warming, resource recycling, and elimination of environmental impact substances so as to provide eco-friendly materials and equipment that use less resources or energy to the market.

b) Making efforts for global environmental conservation

Suppliers are requested to make efforts to implement these items for global environmental conservation as below.

Reduction of substances that may cause global warming, reduction in waste generation, management of chemical substances, reduction in resource consumption, reduction in the environmental loads of wrapping and packaging materials, and implementation of environmental assessment (control of air pollution, water pollution, ground contamination, noise, vibration, etc.).

c) Implementation of green procurement

Suppliers are requested to establish green procurement standards and apply such standards to the procurement of parts and components of materials and equipment.

d) Provision of information on inclusion of SVHC under the REACH regulations

In case of inclusion of the SVHC (*1) under the REACH regulations (*2), suppliers are requested to obtain information on the SVHC and promptly report this to us accordingly.

*1) SVHC means Substance of Very High Concern under the REACH regulations and lists of specific SVHC are published as needed.

<https://www.echa.europa.eu/candidate-list-table>

*2) The REACH regulations are regulations for Registration, Evaluation, Authorization and Restriction of Chemicals enforced from June 1, 2007 by EU.

(2) Public disclosure of information

Suppliers are requested to proactively disclose environmental information on materials and equipment and their commitment and achievements concerning environmental conservation.

5. Application of Green Procurement

(1) Supplier-by-supplier survey

- a) Each supplier is requested to provide information on its management stance towards environmental conservation and materials and equipment.
- b) We will examine the state of the environmental management system and other related matters.
- c) We will check whether or not banned substances are used.

(2) Product-by-product survey

We will survey the contents of banned substances.

(3) Notification of changes

In case of any change in answers to a survey form, suppliers are requested to notify us of such change.

(4) Notification of the inclusion of banned substances exceeding threshold levels

Suppliers are requested to immediately inform the relevant departments when they identify the inclusion of banned substances exceeding the threshold levels.

(5) Any and all information received from suppliers will be treated with the highest confidentiality.

Attachment:

Guidelines for Banned Environmental Impact Substances

1. Purpose of the Guidelines

The purposes of these Guidelines are to clarify substances that must not be included in manufacturing processes and materials and equipment and share information on the banned substances among the Toho Titanium Group (hereinafter referred to as the "Toho Group") and suppliers and thereby improve the environmental quality of Toho Group products.

2. Banned Substances and Threshold Levels

1) Banned substances in products

The following substances must not be intentionally used, and even if they are impurities must not exceed the threshold level.*

* Threshold level: the maximum level at which substances do not start to develop toxicity

(a) Heavy metals (which are contained in wrapping materials, plastics, ink, paints, etc.)

- Cadmium and its compounds
wrapping materials, plastics, ink and paints: less than 5 ppm
raw metals containing zinc: less than 75 ppm
others: less than 20 ppm
- Lead and its compounds: less than 100 ppm
- Chromium VI compounds: less than 100 ppm
- Mercury and its compounds: less than 100 ppm

In packaging materials however, the total contents of the above four substances must not exceed 100 ppm.

(b) Chlorinated organic compounds

- Polychlorinated biphenyls (PCB): less than 50 ppm
- Polychlorinated naphthalene (PCN): prohibited to include (substances with 3 or more chlorine atoms)
- Polychlorinated terphenyl (PCT): less than 50 ppm
- Chlorinated paraffins (CP): prohibited to include (substances with carbon length of 10–13)
- Mirex: prohibited to include

(c) Brominated organic compounds

- Polybromobiphenyls: less than 1000 ppm
- Polybromodiphenylethers: less than 1000 ppm

- (d) Organotin compounds
- Tributyltin compounds: less than 1000 ppm
 - Triphenyltin compounds: less than 1000 ppm
- (e) Asbestos: prohibited to include
- (f) Formaldehyde: less than 0.1 ppm

2) Banned substances in the manufacturing process

- (a) Ozone depleting substances
- CFCs, Halons, HBFCs, HCFCs, methyl bromide and carbon tetrachloride
 - 1,1,1-trichloroethane
- (b) Chlorinated organic solvents
- 1,1,2-trichloroethane
 - 1,2-dichloroethane
 - 1,1-dichloroethylene
 - 1,2-dichloroethylene
 - Dichloromethane (methylene chloride)
 - Chloroform
 - Trichloroethylene
 - Tetrachloroethylene

Note 1: Threshold level means the concentration of banned substances that the Toho Group applies to the management of materials and equipment.

Note 2: The Toho Group may, in its own right, allocate lower figures to these regulation and management values in accordance with its circumstances (such as client requests).

Note 3: If any treaties, laws and regulation, or guidelines of business fields stipulate regulations on substances not listed in these Guidelines, suppliers are requested to completely observe them.

3. Application

- (1) These Guidelines are established for preventing environmental impacts of products and do not cover all the substances banned by laws and regulations. These guidelines are therefore subject to review in terms of global environment conservation.
- (2) Although these Guidelines are to be observed as a general rule, in special cases where these Guidelines cannot be observed, for example the use of substances which are listed in these guidelines but exempted by laws and regulations or substances for which no technological solution has been developed to provide alternative substitutes including components made from such substances, then we

allow the managers at business operations that procure the substances to determine their availability.

- (3) These Guidelines show a list of a minimum number of banned substances that all the business operation must commonly observe. Each business operation can therefore add original banned substances to the list depending on the requests from clients.