



# Precautions for Using Our Products Safely






In order to take advantage of the features of our products and use them safely, carefully read and observe the precautions listed here. Failure to do so may result in injury or physical damage.

 <b>Warning</b>	Conditions that could result in death or serious injury.
 <b>Caution</b>	Hazardous conditions in which only minor or moderate injuries may occur and hazardous conditions in which only property damage is expected.

Note: For terms marked with \* in the text, refer to the definition of terms.

TOYOCONNECTOR LIGHT TC2-P resin (Toyox hose dedicated coupling: Check the compatible hoses.) \* For indoor use only



## ① Precautions regarding construction

-  **Warning** Perform installation work at a temperature of 10° C or higher. If installation work is performed at below 10° C, hardening of the resin may temporarily increase the load, causing damage.
- A small amount of lubricant is applied to the inner surface of the cap nut to reduce tightening torque.
- When adjusting the hose length, cut the hose so that the edge face of the hose will become perpendicular.
- Make sure that the hose has enough length to ensure that no bending stress is applied to the hose near the coupling.
-  **Warning** Do not apply oil or other substance to the surface of the hose insertion part when inserting the hose. Doing so may cause hose disconnection.
- Check that the hose is inserted up to the base of the hose insertion part.
- Do not damage the hose insertion part with a cutter blade or similar item.
-  **Warning** Use sealing tape exclusively on pipe threads. Refrain from using liquid sealant, as some kinds contain solvents, which can corrode and damage resin. Wind sealing tape about seven times starting at the second thread to prevent leaking and damage to the threads.
-  **Warning** When screwing a nipple pipe thread onto equipment, leave a gap of at least 0.5 mm. Tightening the thread until there is no gap can cause the pipe thread to break.
- Tighten the cap nut until there is no gap. If the product is used when there is a gap, trouble caused by fluid leakage and hose disconnection may occur. Take care to avoid injury caused by slipping of the adjustable wrench while tightening.
- Use an adjustable wrench for tightening. Do not use a pipe wrench. Doing so will damage the cap nut.
-  **Warning** Be careful not to tighten the resin cap nut and nipple more than necessary. Tighten the hexagonal part with an adjustable wrench and fasten so there is no gap (looseness). Excessive tightening, or looseness of the hexagonal part and wrench, may cause damage.
- When installing and removing, take care to avoid injury from the sharp edges of the coupling.
- After installation, make sure that there is no fluid leakage from the coupling. If any damage, deformation, or other abnormality is found, do not use.

## ② Precautions regarding use

- This product is a hose coupling that is specifically designed for Toyox hoses. Connecting the coupling to a hose made by another manufacturer or an incompatible hose may result in poor performance or an inability to maintain performance. Any such problems will not be covered by any warranty.  
\* Compatible hoses vary depending on the coupling. Check in the catalog or our website.
- The operating temperature range is 0 to 60° C. Do not use the product outside the specified operating pressure range shown below.  
\* Do not use compatible hoses outside the specified operating pressure range shown below or outside of the hose operating pressure range.

Size \ Pressure	Pressure (MPa)	
	23°C	60°C
φ 15	1.2	0.7
φ 19	1.0	0.6
φ 25	0.8	0.5

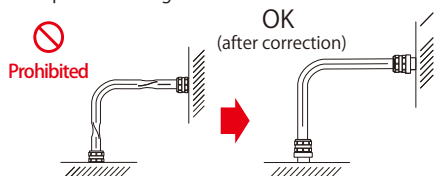
- This product is for indoor use only. Avoid outdoor use. Sunlight can cause the resin strength to deteriorate, shortening the service life. Also, avoid using the product in places subject to sunlight or near ultraviolet sterilization equipment even indoors. Avoid using the product near heat sources.
- Even when using a hose that enables negative pressure use, use of the hose under negative pressure may not be possible depending on the application and conditions (temperature, movement).
- Due to bumps in the threaded part, do not use for sanitary piping (for food products, etc.).
- Do not fully bend the hose near the coupling. Do not use the hose below the minimum bending radius\*.
-  **Warning** Do not assemble or disassemble the coupling while fluid is passing through the hose. Doing so may result in fluid leakage or hose disconnection.
- Perform initial and periodic inspections to make sure that the hose does not become disconnected from the coupling and the fluid does not leak during use.
-  **Warning** Do not use in piping for the following applications. Doing so may result in coupling damage, hose rupture, or hose disconnection.
  - For piping such as electromagnetic valve piping, which would apply impact to the inside of the piping
  - Places where vibration and shock would be applied to the coupling
  - Where constant tensile stress may be applied to the hoses
  - Where the hose may become electrically charged (risk of electric shock)

10. This product is not a product that can be used with all types of fluids. For the usable fluids, refer to the chemical resistance data of the coupling fluid contact surface (PP resin), and evaluate using the devices and usage conditions that are actually used at the customer. In particular, use caution because solvents, surfactants, and other harmful chemicals will significantly penetrate the resin and cause damage. Product durability (service life) will vary depending on the method of use, temperature, pressure, concentration, and other conditions.
11. Do not allow fluid to contact any part other than the inner surface of the hose and coupling. Doing so may cause the fluid to penetrate the hose reinforcement layer, remain in the coupling, encourage bacteria (adhesion), and cause hose deterioration. In addition, contamination with dust, hose fragments (reinforcement material), and printed ink on the outer surface may occur.

### ③ Precautions related to reuse of couplings and replacement of hoses

1. **⚠ Warning** The TOYOCONNECTOR TC2-P is made of resin and cannot be reused.
2. Always use a new hose and connector when replacing either.
3. **⚠ Warning** The material used for the flow path (inner surface) of this product is PP (polypropylene). Phenomena such as deterioration or fluid leaks may occur depending on the type of fluid. Before using the product, check the chemical resistance data or contact our Customer Service Office. Please also check for fluid contact with the outer surface of the connector.
4. Do not use hoses when they are twisted. Partially twisted hoses are also a danger as they may cause internal structural damage leading to ruptures. Follow the examples below to take preventative measures.

Example 1: Twisting of hose when connected



Example 2: Twisting when hose is bent

