



Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của **NPOWER** Bản quyền nội dung thuộc về **Toyox Co., Ltd.**  
**www.npower.com.vn** Powered by **NAVITECH** | [www.navitech.co](http://www.navitech.co)



# Safety Data Sheet

|                                 |   |
|---------------------------------|---|
| <b>【 Producer information 】</b> | Company name : TOYOX CO., LTD.                                  |
|                                 | Address : 4371 Maezawa Kurobe-city, Toyama-pref. Japan 938-8585 |
|                                 | Responsible department : R&D HQ.                                |
|                                 | Contact : Tel : 0765-52-3131 : Fax : 0765-52-4245               |
| Document number :               | Created/Revised : June 1, 2022                                  |
| TYX-00015-4                     |   |

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|                         |                   |          |
|-------------------------|-------------------|----------|
| <b>【 Product name 】</b> | TOYOSILICONE HOSE | φ5 ~ φ50 |
|-------------------------|-------------------|----------|

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## **【 Physical characteristics 】**

|  |   |
|--|---|
| Chemical characterization                    | : Mixed   |
| Chemical name                                | : Silicon, Polyethylene terephthalate   |
| Content                                      | : —   |
| Chemical formula                             | : —   |
| CAS NO.                                      | : All components have CAS numbers.  |
| Serial number in official government gazette | : All components have numbers under the Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances. |

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## **【 Dangerous substance classification 】**

|                        |   |
|------------------------|---|
| Name of classification | : Does not correspond to classification standards.          |
| Danger level           | : Stable and non-reactive under normal handling conditions. |

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## **【 Emergency treatment 】**

|                      |  |
|----------------------|--|
| In the eyes          | : Wash thoroughly in clean running water right away. |
| On the skin          | : First aid not required.                            |
| If inhaled           | : First aid not required.                            |
| In case of ingestion | : Receive medical treatment from a doctor.           |
| Notes                | : Treat in accordance with symptoms.                 |

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## **【 Firefighting measures 】**

|                                  |   |
|----------------------------------|---|
| Specific fire fighting           | : In the event of a major fire involving chemical materials, heat-proof protective suits with independent oxygen supply must be worn. Institute evacuation procedures immediately in accordance with local emergency plans and keep people well away from the fire. Containers exposed to the fire should be cooled by spraying with water. |
| Extinguishing media              | : In the event of a major fire, use powdered fire retardant or water spray to contain the fire. Small fires can be controlled using carbon dioxide powder or water spray. Water spray can be used to cool containers exposed to the fire.   |
| Unsuitable extinguishing media   | : None established  |
| Hazardous decomposition products | : Carbon oxides, traces of non-combusted carbon compounds, silicon dioxide. The incineration may generate toxic gases.  |

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## 【 Disclaimer 】

- TOYOSILICONE HOSE should be used appropriately according to its usage conditions. Please read our catalogs and instructions and contact us if there is anything unclear.
- Expel contents of hose after use.
- Store hose in a well-ventilated location away from direct sunlight.
- Do not hang the hose on a nail pegged on the wall. Avoid storing in a manner that causes excessive bending, twisting or folding of the hose.
- Keep the hose in its box and store at a low humidity and well-ventilated place away from direct sunlight. Storing the hose out of its box encourages build-up of electric charge, attracting dirt and dust to the hose surface. This can cause the hose to become dirty and unhygienic.
- Do not store the hose out of its box and near rubber products. Even if it is not touching directly, the rubber can cause discoloration of the hose.

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## 【 Physical and chemical properties 】

|   |                         |
|---|-------------------------|
| Appearance  | : transparency          |
| Specific gravity  | : 1.2                   |
| Odor  | : Odorless              |
| Solubility  | : Non soluble in water. |
| Boiling point / vapor pressure<br>/ melting point / initial boiling<br>point / volatility | : non data              |

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## 【 Danger information 】

|                                |   |
|--------------------------------|---|
| Flash point                    | : > 100 °C (Seta closed cup)                                |
| Burning point                  | : non data  |
| Reactivity with water          | : none  |
| Self-reactivity, explosiveness | : none  |
| Safety/reactivity              | : Stable and non-reactive under normal handling conditions. |

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## 【 Acute toxicity】

|                       |  |
|-----------------------|--|
| Acute toxicity        | : This product does not contain hazardous substances that are listed in regulations and our company control criterion. |
| Carcinogenicity       | : non data   |
| Teratogenicity        | : non data   |
| Mutagenicity          | : non data   |
| Reproductive toxicity | : non data   |
| Sensitization         | : non data   |

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## 【 Ecological information 】

|   |  |
|---|--|
| Persistence and degradability<br>water        | : Solid material, insoluble in water.                    |
| Environmental effects                         | : No adverse effects on aquatic organisms are predicted. |
| Bioaccumulation                               | : No bioaccumulation potential.                          |
| Fate and effects at waste<br>treatment plants | : No adverse effects on bacteria are predicted.          |

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## 【 Disposal 】

Disposal may also be handled by disposal contractors with appropriate accreditation from the prefectural authorities.

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## 【 Transportation 】

Avoid rough or careless handling that could damage the product.

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## 【 Applicable laws and regulations 】

Law concerning examination and regulation of manufacture, etc. of chemical substances : Not applicable.

Industrial safety and health law : Not applicable.

High pressure gas safe law : Not applicable.

Fire service law : Designated flammable substances: Synthetic resin and others (3,000kg)

Poisonous and deleterious substance control law : Not applicable.

PRTR Law : As described in 【Physical characteristics】

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## 【 About this document 】

This document is based on materials, documents and other information as available at the time of writing. No guarantee is provided as to the accuracy thereof. The information provided in this document is predicated on the assumption of normal usage of the product under normal conditions. Special care is required when using or handling the product in a way that is special or different to normal.

# TECHNICAL DATA SHEET

No. 27-009

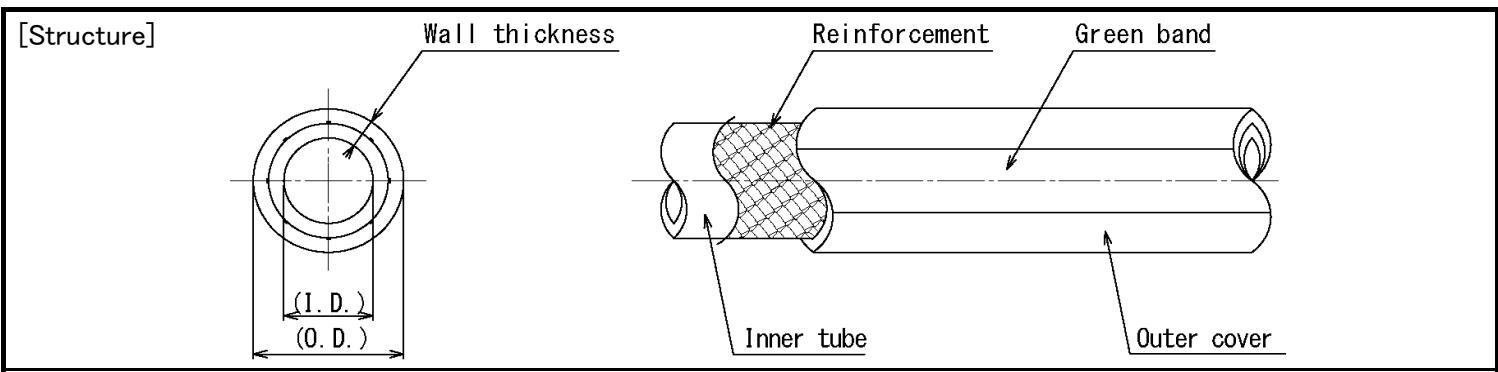
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |       |
|--------------|-------------------|----------------|-------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-5 |
|--------------|-------------------|----------------|-------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 4.8 × 10.6 mm                | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 4.8 ± 0.6 mm                 | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 10.6 ± 0.6 mm                | 10              | Burst pressure (23 °C)         | 5.0 MPa or higher                     |
| 4 | Wall Thickness        | 2.9 ± 0.4 mm                 | 11              | Working pressure               | 0 ~ 1.0 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>70 mm or bigger            |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

• Please be sure to keep it about an important document.

Revision ① May 29, 2013

• Please do not forget to let us know Technical Data Sheet No. when you inquiry.

② December 11, 2013

• Please give us an inquiry to each nearby branch or office.

③ June 11, 2015

④ April 20, 2020

# TECHNICAL DATA SHEET

No. 27-009

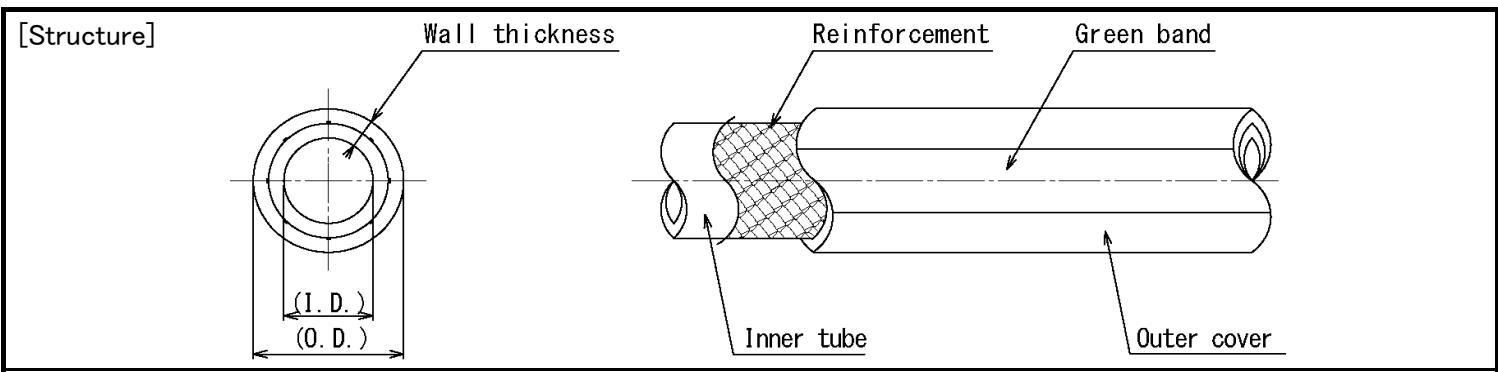
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |       |
|--------------|-------------------|----------------|-------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-5 |
|--------------|-------------------|----------------|-------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 4.8 × 10.6 mm                | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 4.8 ± 0.6 mm                 | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 10.6 ± 0.6 mm                | 10              | Burst pressure (23 °C)         | 5.0 MPa or higher                     |
| 4 | Wall Thickness        | 2.9 ± 0.4 mm                 | 11              | Working pressure               | 0 ~ 1.0 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>70 mm or bigger            |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-010

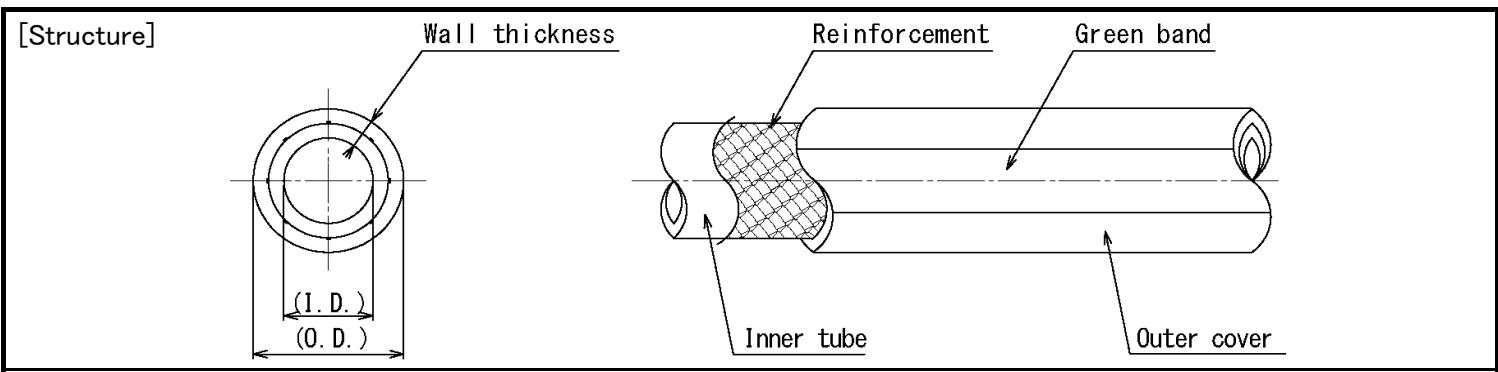
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |       |
|--------------|-------------------|----------------|-------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-6 |
|--------------|-------------------|----------------|-------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 6.3 × 12.3 mm                | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 6.3 ± 0.6 mm                 | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 12.3 ± 0.6 mm                | 10              | Burst pressure (23 °C)         | 5.0 MPa or higher                     |
| 4 | Wall Thickness        | 3.0 ± 0.4 mm                 | 11              | Working pressure               | 0 ~ 1.0 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>80 mm or bigger            |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-011

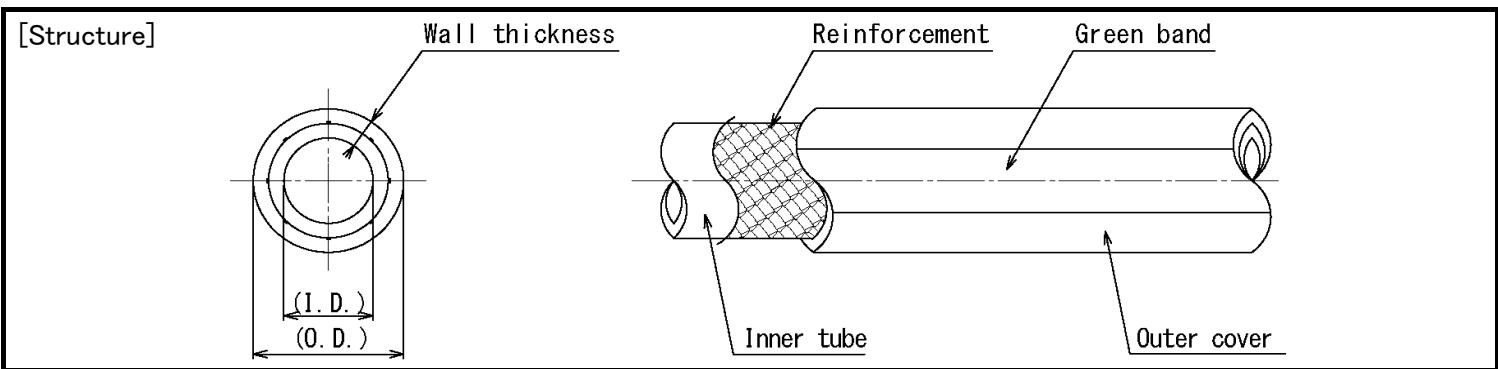
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |       |
|--------------|-------------------|----------------|-------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-8 |
|--------------|-------------------|----------------|-------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 7.9 × 14.3 mm                | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 7.9 ± 0.6 mm                 | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 14.3 ± 0.6 mm                | 10              | Burst pressure (23 °C)         | 4.0 MPa or higher                     |
| 4 | Wall Thickness        | 3.2 ± 0.4 mm                 | 11              | Working pressure               | 0 ~ 1.0 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>90 mm or bigger            |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-001

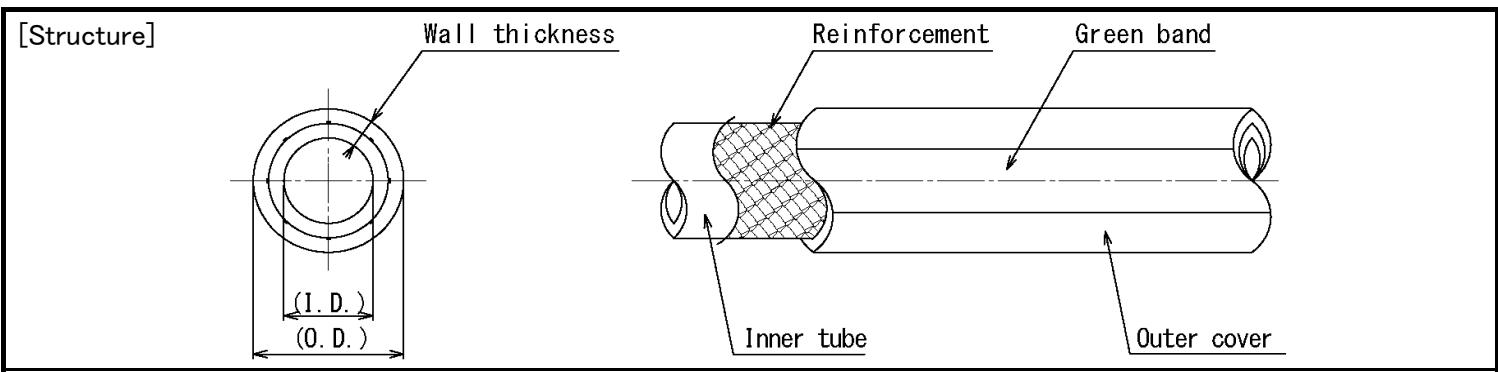
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |       |
|--------------|-------------------|----------------|-------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-9 |
|--------------|-------------------|----------------|-------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 9.5 × 16.0 mm                | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 9.5 ± 0.6 mm                 | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 16.0 ± 0.6 mm                | 10              | Burst pressure (23 °C)         | 3.5 MPa or higher                     |
| 4 | Wall Thickness        | 3.25 ± 0.5 mm                | 11              | Working pressure               | 0 ~ 1.0 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>100 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-002

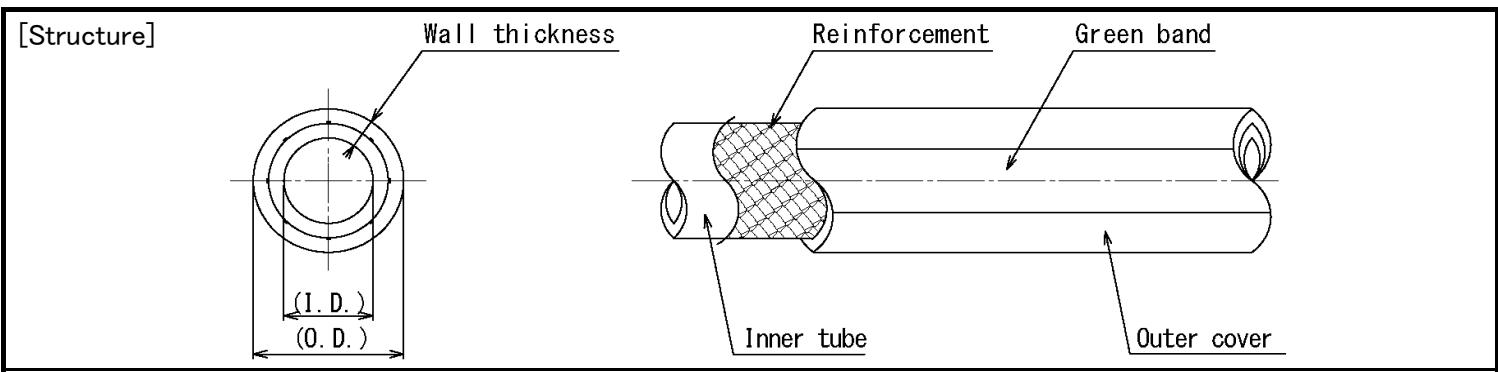
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-12 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 12.7 × 19.5 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 12.7 ± 0.7 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 19.5 ± 0.7 mm                | 10              | Burst pressure (23 °C)         | 2.5 MPa or higher                     |
| 4 | Wall Thickness        | 3.4 ± 0.6 mm                 | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>130 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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③ June 8, 2015

④ April 20, 2020

# TECHNICAL DATA SHEET

No. 27-003

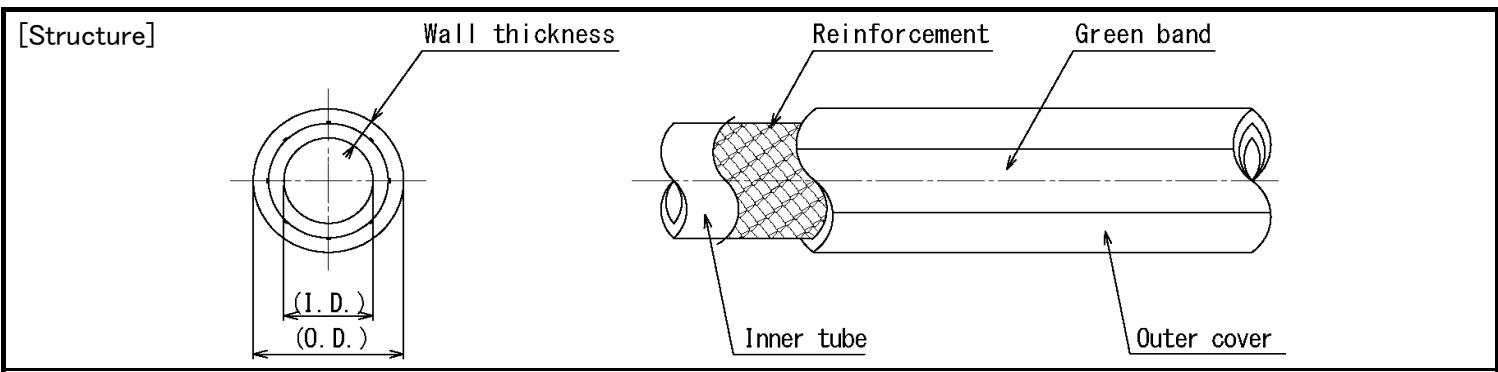
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-15 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 15.9 × 24.0 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 15.9 ± 0.8 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 24.0 ± 0.8 mm                | 10              | Burst pressure (23 °C)         | 2.5 MPa or higher                     |
| 4 | Wall Thickness        | 4.05 ± 0.7 mm                | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>150 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

• Please be sure to keep it about an important document.

Revision ① May 29, 2013

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② December 11, 2013

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③ June 8, 2015

④ April 20, 2020

# TECHNICAL DATA SHEET

No. 27-004

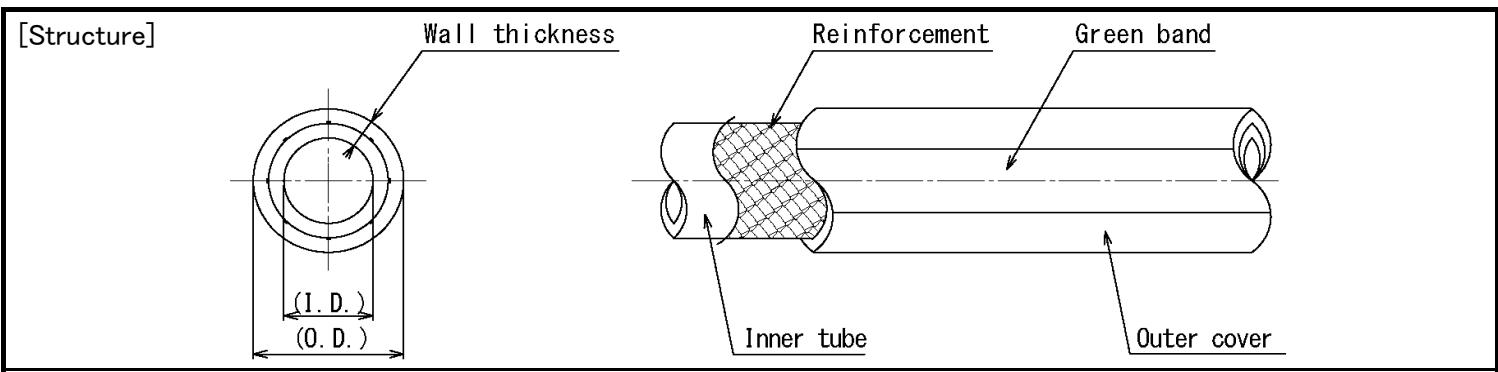
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-19 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 19.0 × 28.0 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 19.0 ± 0.9 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 28.0 ± 0.9 mm                | 10              | Burst pressure (23 °C)         | 2.5 MPa or higher                     |
| 4 | Wall Thickness        | 4.5 ± 0.8 mm                 | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>180 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-005

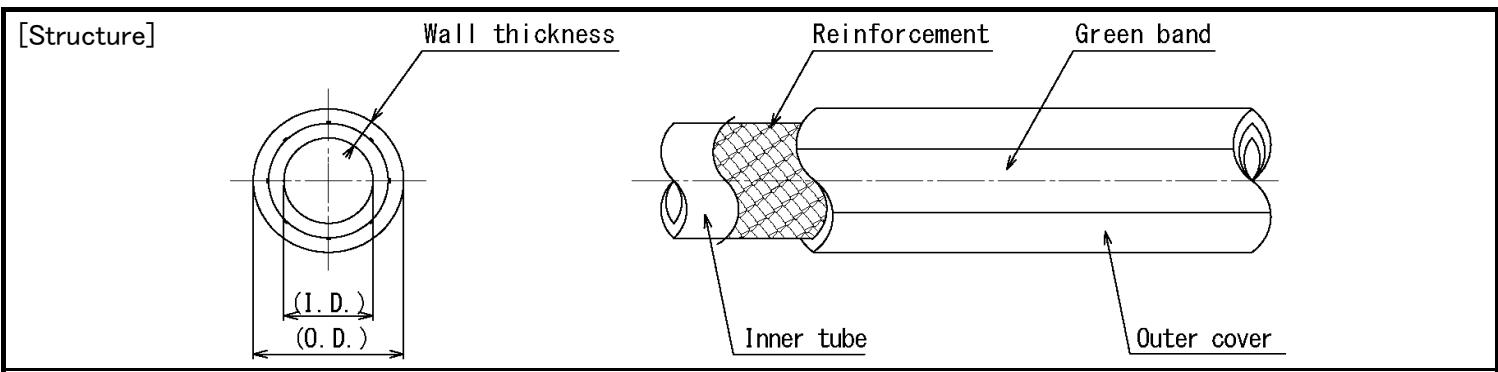
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-25 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 25.4 × 35.5 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 25.4 ± 1.1 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 35.5 ± 1.1 mm                | 10              | Burst pressure (23 °C)         | 2.0 MPa or higher                     |
| 4 | Wall Thickness        | 5.05 ± 1.0 mm                | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>220 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-006

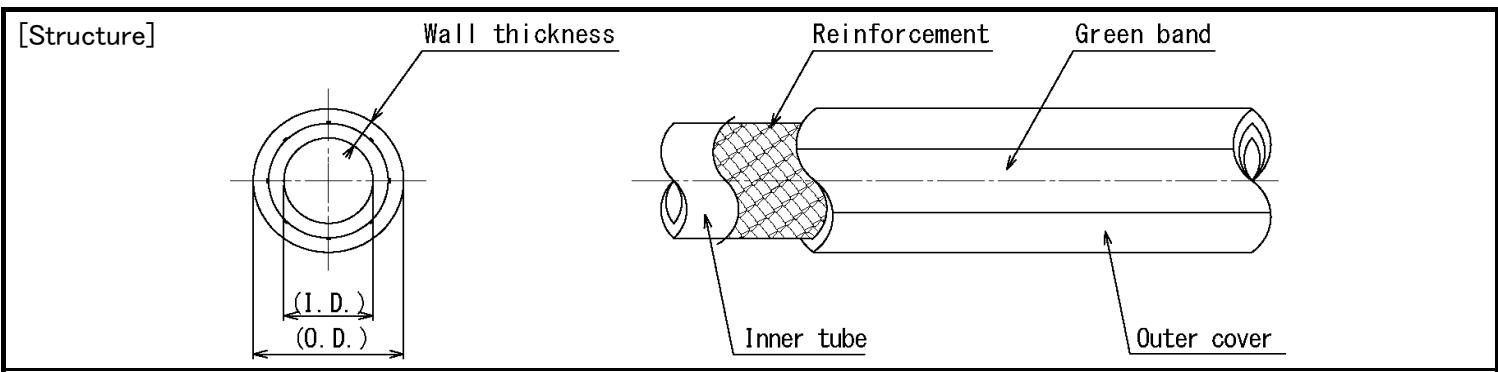
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-32 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 32.0 × 43.5 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 32.0 ± 1.4 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 43.5 ± 1.4 mm                | 10              | Burst pressure (23 °C)         | 2.0 MPa or higher                     |
| 4 | Wall Thickness        | 5.75 ± 1.2 mm                | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>250 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-007

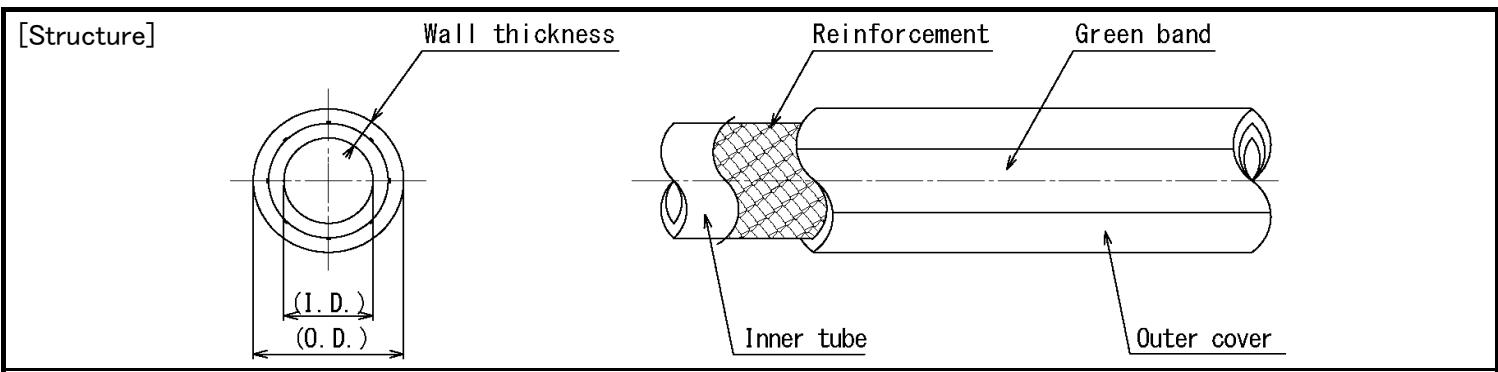
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-38 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 38.1 × 50.5 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 38.1 ± 1.6 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 50.5 ± 1.6 mm                | 10              | Burst pressure (23 °C)         | 1.8 MPa or higher                     |
| 4 | Wall Thickness        | 6.2 ± 1.4 mm                 | 11              | Working pressure               | 0 ~ 0.5 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>310 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
- For applications that required safety, confirm in advance.

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# TECHNICAL DATA SHEET

No. 27-008

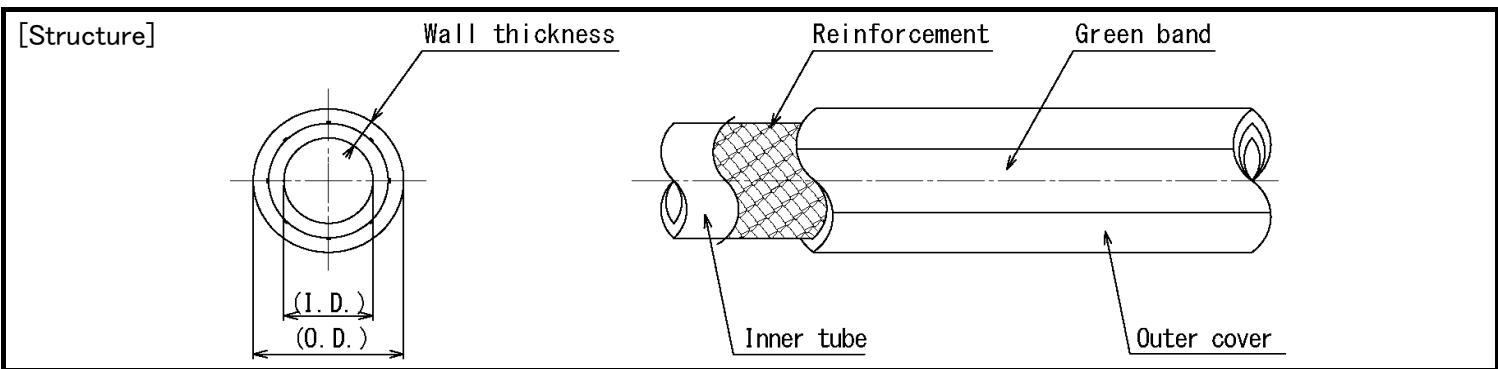
TOYOX CO., LTD.

June 1, 2021

*C. Hagihara*

|              |                   |                |        |
|--------------|-------------------|----------------|--------|
| Product Name | TOYOSILICONE HOSE | Product Number | TSI-50 |
|--------------|-------------------|----------------|--------|

Chihiro Hagihara  
R&D HQ.



( Product Standards )

( Operating Condition )

|   |                       |                              |                 |                                |                                       |
|---|-----------------------|------------------------------|-----------------|--------------------------------|---------------------------------------|
| 1 | Size<br>(I.D. × O.D.) | 50.8 × 64.5 mm               | 8               | Operating fluid                | Note 1.<br>Drinking water, Food, etc. |
| 2 | Inner Diameter        | 50.8 ± 1.8 mm                | 9               | Working temperature            | -30 °C ~ 150 °C                       |
| 3 | Outer Diameter        | 64.5 ± 1.8 mm                | 10              | Burst pressure (23 °C)         | 1.6 MPa or higher                     |
| 4 | Wall Thickness        | 6.85 ± 1.6 mm                | 11              | Working pressure               | 0 ~ 0.3 MPa                           |
| 5 | Reinforcement         | High strength polyester cord | 12              | Minimum Bending Radius (23 °C) | Note 2.<br>550 mm or bigger           |
| 6 | Hose Material         | Inner                        | Silicone rubber | 13                             |                                       |
|   |                       | Outer                        | Silicone rubber | 14                             |                                       |
| 7 | Hose Color            | Milky transparent            | 15              |                                |                                       |

**Note 1.** This information is presented as a guide for selecting the correct hose type for your application.

Correct selection is important for prolonging the life of the hose and preventing associated safety issues.

If unsure, contact the Customer Service Center for advice.

**Note 2.** The minimum bending radius applies at normal room temperature (as determined in tests conducted by Toyox).

Do not subject the hose to excessive bending or flattening.

- This product conforms to the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.380, 2020. (Old the standards of the Ministry of Health, Labor and Welfare of Japan Notification No.595, 2012.)
- This product complies with the extraction test method according to CFR21(FDA) 177.2600 standard.
- Be careful not to damage the silicone rubber hose, as it is easier to cut.
- Never use silicone rubber hoses to convey nonpolar organic solvents, halogenated hydrocarbon, strong acid, strong alkali, mineral oil, steam for long periods of time, or animal or vegetable oil of 70 °C or higher.
- Do not use for high temperature water above 100 °C.
- The hose should be disposed of in accordance with the requirements of the local region.
- TOYOX products have been developed and manufactured for general industrial applications.
- Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.
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