

USASEALING ZUSA-HT-4018

USASEALING High Temperature Silicone Tubing

MODEL: ZUSA-HT-4018

1. Introduction

This manual provides essential information for the safe and effective use of the USASEALING ZUSA-HT-4018 High Temperature Silicone Tubing. Please read these instructions carefully before installation, operation, or maintenance to ensure optimal performance and longevity of the product.

The ZUSA-HT-4018 tubing is designed for demanding applications requiring high purity and resistance to elevated temperatures and pressures.

2. Safety Information

- **Pressure Limits:** Do not exceed the maximum operating pressure of 220 psi (15.17 bar). Exceeding this limit can lead to tubing failure and potential injury.
- **Temperature Limits:** Ensure the operating temperature remains within the specified range for high-temperature silicone. Extreme temperatures outside this range can degrade the material.
- **Chemical Compatibility:** Verify chemical compatibility with the fluid being conveyed. While silicone is broadly resistant, certain chemicals can cause degradation.
- **Installation:** Always ensure connections are secure and leak-free. Improper installation can lead to system failure.
- **Inspection:** Regularly inspect the tubing for signs of wear, damage, or kinking. Replace damaged tubing immediately.

3. Product Overview

The USASEALING ZUSA-HT-4018 is a high-purity silicone tubing, platinum cured, and reinforced with a polyester braid. It is manufactured from FDA compliant materials and certified to 3A standards, making it suitable for food, beverage, dairy, and pharmaceutical applications.

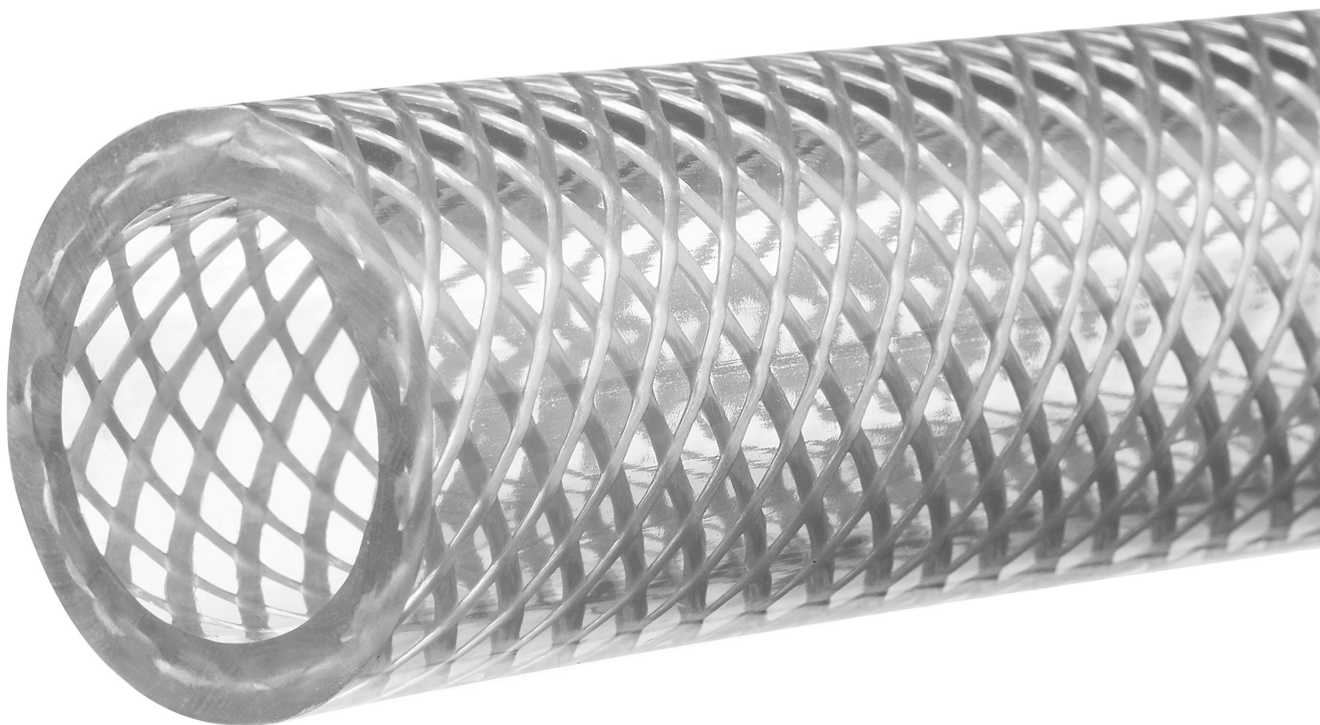


Image 1: USASEALING ZUSA-HT-4018 High Temperature Silicone Tubing. This image shows the translucent silicone tubing with visible polyester braid reinforcement.

Key Features:

- **Material:** Silicone, Reinforcement: Polyester Braid
- **Grade:** Food Grade, FDA compliant, 3A certified
- **Hardness:** Soft (60A - 80A)
- **Curing Method:** Platinum Cured
- **Maximum Operating Pressure:** 220 psi

4. Setup and Installation

1. **Preparation:** Before installation, ensure the tubing and all connecting components are clean and free from debris.
2. **Cutting:** Cut the tubing to the desired length using a sharp, clean tool to ensure a straight, burr-free cut.
3. **Connections:** Securely attach the tubing to appropriate fittings. For pressure applications, use clamps or crimps

designed for the tubing's outer diameter to prevent leaks.

- 4. **Routing:** Route the tubing to avoid sharp bends or kinks. The minimum bend radius for this tubing is 100mm. Bending below this radius can restrict flow or damage the tubing.
- 5. **Support:** Provide adequate support for long runs of tubing to prevent sagging, especially when conveying liquids.
- 6. **Pressure Testing:** After installation, perform a low-pressure test to check for leaks before operating at full system pressure.

5. Operating Instructions

Operate the USASEALING ZUSA-HT-4018 tubing within its specified parameters to ensure safety and performance.

- **Pressure Management:** Do not exceed the maximum operating pressure of 220 psi. Monitor system pressure regularly.
- **Temperature Control:** Maintain fluid and ambient temperatures within the tubing's rated temperature range.
- **Flow Rate:** Ensure the flow rate is appropriate for the tubing's inner diameter and application to prevent excessive pressure drop or turbulence.
- **Fluid Compatibility:** Confirm that the fluid being transported is compatible with silicone to prevent material degradation.

6. Maintenance

- **Regular Inspection:** Periodically inspect the tubing for any signs of wear, cuts, abrasions, discoloration, hardening, or softening. Pay close attention to connection points.
- **Cleaning:** Clean the tubing as required by your application's standards. For food and pharmaceutical applications, follow strict sanitization protocols. Silicone tubing can typically be sterilized by autoclaving.
- **Storage:** Store unused tubing in a cool, dry place away from direct sunlight, ozone, and harsh chemicals. Keep it in its original packaging if possible to protect it from environmental factors.
- **Replacement:** Replace tubing at the first sign of damage or degradation to prevent system failure and contamination.

7. Troubleshooting

Problem	Possible Cause	Solution
Leaks at connections	Loose clamps, incorrect fitting size, damaged tubing end	Tighten clamps, verify fitting compatibility, re-cut and re-install tubing
Reduced flow	Kinked tubing, internal blockage, collapsed tubing due to vacuum	Re-route tubing to avoid kinks, clear blockage, use thicker wall tubing for vacuum applications
Tubing discoloration or hardening	Exposure to incompatible chemicals, excessive temperature, UV exposure	Verify chemical compatibility, ensure temperature limits are not exceeded, protect from UV light, replace tubing
Tubing bursting	Exceeding maximum operating pressure, physical damage	Ensure pressure is within limits, inspect for damage before use, replace tubing

8. Specifications

Attribute	Value
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Attribute	Value
Model Number	ZUSA-HT-4018
Material	Silicone, Polyester Braid Reinforcement
Inner Diameter (ID)	38 mm
Outer Diameter (OD)	48 mm
Length	5 ft (1.52 m)
Maximum Operating Pressure	220 psi
Hardness	Soft (60A - 80A)
Bend Radius	100 mm
Curing Method	Platinum Cured
Certifications	FDA Compliant, 3A Standards
Item Weight	1.6 ounces (45.36 g)
Product Dimensions	300 x 0.31 x 0.31 inches (approximate shipping dimensions)
UPC	193005071783

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Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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