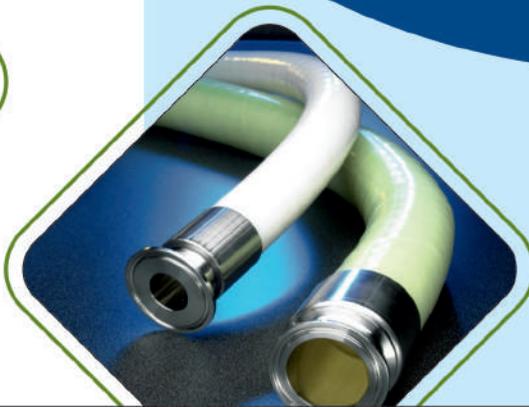




An ISO 9001:2015 Certified Company

# SHAH SEALTECH PRIVATE LIMITED

(Formally known as *Mahati polymer corporation*)





# About Us

## ABOUT US

We are pleased to introduce ourselves as supplier of EXTRUDED and MOULDED Synthetic Rubber and Engineering Fluorinated Plastic Products of Silicone (Platinum/Peroxide Cured), Fluoro Silicone, FKM (VITON®), Perfluoro Elastomer (KARLREZ®), EPDM (EPM), Neoprene, Nitrile Rubber, Polyurethane (PU) & Pure PTFE (TEFLON®), PEEK, Delrin, Nylon Products.

Our Journey started in the year 2005, under registered trademark of M-tech Silicone™ & M-prene™ formally known as a Mahati Ploymer Corporation and Nand Sales Corporation, Ahmedabad.

### **We provide following Certification:**

1. US FDA DMF 034277, US FDA DMF 034278, US FDA DMF 034279
2. D&B D-U-N-S Number: 67-650-1769
3. MSME Registered
4. RMWA (Gujarat Rubber Manufacturer Welfare Association)
5. AIRIA (All India Rubber Industries Association)
6. IRI (Indian Rubber Institute)

## VISION

To provide the highest quality product possible through our highly skilled dedicated team and state-of-the-art and manufacturing process by constantly seeking innovation via continuous education, learning and the application of new technologies & best business practices. Making customer oriented approach as centre of focus & build global renowned brand.

## MISSION

Our mission is to operate the business utilizing our core integrity values leading ethical business environment, optimizing cost & serving highest standards quality products. We are willing to make our culture employee friendly by looking at our employees as key success factor and offering them an attractive working environment.

# PRODUCT RANGE

## PRODUCT RANGE

- Silicone Transparent Tubes (Peroxide & Platinum Cured)
- Silicone Transparent Polyester Braided Hoses (Peroxide & Platinum Cured)
- Silicone Transparent SS Wound Braided Hoses (Peroxide & Platinum Cured)
- Silicone Autoclave, Sterilizer, Bung, Lyophilizer Processor Door Gasket/Seal.
- Silicone Inflatable Seal/ Gasket for FBD, FBP, FBE, Isolator, Autoclave, Lyophilizer.
- Silicone, EPDM/EPM, VITON<sup>®</sup>, TEFLON<sup>®</sup>, Triclover Gaskets, Smart TC Gasket for Validation, Filter Screen Gasket.
- Silicone, VITON<sup>®</sup> sheets
- Silicone, EPDM/ EPM, VITON<sup>®</sup>, TEFLON<sup>®</sup> O Ring.
- Silicone, EPDM/ EPM, VITON<sup>®</sup> Round/ Sq. Cord & Profile Section.
- Silicone EPDM/EPM, Sponge Profile and Section.
- Silicone, Extruded & Fabricated Door Gasket.
- FEP Encapsulated O-Rings.
- Silicone, EPDM/EPM, VITON<sup>®</sup>, Butterfly Valve Seat Gasket
- Silicone Vacuum & Powder Transfer Bellows
- Silicone Flush Bottom Valve Diaphragm (Retro Fit to Steridose, Sartorius Pharmed)
- Silicone Corona Treater Sleeve
- Silicone PRV Diaphragm (For Spirex)
- Pure PTFE (TEFLON<sup>®</sup>) back by Silicone, EPDM/EPM, VITON<sup>®</sup> Diaphragm (Screw Type, Pin Type, Push type) (Retro Fit to Saunders, Gemu)
- Silicone Docking Gasket for IBC - IPC
- Silicone Impellers For Pump
- SS Reactor & Glass Lined Reactor Manhole Gasket
- Silicone, TEFLON<sup>®</sup> with SS Braided Crimped Hose, (with SS TC End, Flange End, SMS End)

## CERTIFICATION



**M-Pureflow** - Platinum-cured Silicone tubing is highly regarded in Pharmaceutical applications due to its purity, Biocompatibility, and resistance to contaminants. It meets stringent industry standards for critical pharmaceutical processes such as drug formulation, sterile fluid transfer, and Bioprocessing.

### Why Platinum-Cured Silicone Tubing for Pharmaceuticals?

Platinum-cured silicone tubing undergoes a specialized curing process using platinum as a catalyst, which minimizes the presence of unwanted by-products, impurities, and leachables that can compromise the quality and safety of pharmaceuticals.

### M-Pureflow - Key Characteristics for Pharmaceutical Applications

#### Platinum Cured Silicone Tubing for Transfer of High Purity Fluids

Platinum cured silicone tubing is a high-purity, flexible tubing made using a platinum-catalyzed curing process. This type of silicone tubing is particularly valued for its purity, biocompatibility, and low levels of extractable and leachable, making it ideal for transferring high-purity fluids. The platinum curing process ensures that the tubing has no residual peroxide by-products, which are common in other types of silicone curing methods.

#### Uses and Applications:

- **Pharmaceutical and Biotech Industries:** Used in processes that require the transfer of high-purity fluids, such as in bio processing, drug manufacturing, and vaccine production.
- **Medical Devices:** Integrated into various medical devices where the transfer of sterile fluids is critical, including catheters, peristaltic pumps, and IV systems.
- **Food and Beverage Processing:** Employed in the transfer of sensitive liquids such as dairy, water, and juices where contamination must be avoided.
- **Laboratory Applications:** Utilized in lab environments where chemical purity and material compatibility are essential, such as in chromatography and fluid transfer systems.
- **Semiconductor Manufacturing:** Used in the production of semiconductors, where ultra-pure materials are necessary to avoid contamination.

#### Characteristics

- **High Purity:** Platinum-cured silicone tubing is free from peroxide by-products, ensuring it does not contaminate the fluids it carries.
- **Biocompatibility:** It is highly compatible with human tissues and fluids, making it safe for medical and pharmaceutical applications.
- **Chemical Resistance:** Resistant to a wide range of chemicals, including acids, bases, and solvents, which allows it to be used in various industrial processes.
- **Thermal Stability:** Maintains its properties over a broad temperature range, typically from -60°C to 200°C (-76°F to 392°F), ensuring reliability in both low and high-temperature applications.
- **Flexibility and Elasticity:** Remains flexible without compromising durability, even after repeated sterilization processes.
- **Low Extractable and Leachable:** Minimizes the risk of contamination in sensitive processes by reducing the potential for substances to leach out of the tubing into the fluid being transported.

## CERTIFICATION



## Platinum-Cured Silicone Tubing with Prolonged Pump Longevity for continuous Peristaltic Pumps Operations.

### Key Characteristics of Platinum-Cured Silicone Tubing for Peristaltic Pumps

#### • Extended Pump Life :

- **Durability** : The tubing is formulated to resist compression set, meaning it can retain its shape after being repeatedly compressed in the pump, thus extending its life.
- **Abrasion Resistance** : Enhanced abrasion resistance allows the tubing to withstand the mechanical stress from the rollers of the peristaltic pump without premature wear.
- **Flex Fatigue Resistance** : High resistance to flexing and stretching, crucial for maintaining performance over extended use.

• **Biocompatibility and Purity** : Platinum Curing : This process reduces the presence of extractables and leachables, making the tubing highly pure and suitable for sensitive applications, such as drug manufacturing or food processing.

Non-toxic and Non-reactive : Safe for use with biological fluids, chemicals, and other sensitive materials without risk of contamination.

• **Consistency and Precision** : Flow Stability : The tubing maintains consistent wall thickness, ensuring accurate and stable flow rates, which is essential for precise dosing and fluid transfer.

- **Temperature Resistance** : It can operate in a wide range of temperatures, typically from -60°C to +200°C (-76°F to +392°F), without losing its mechanical properties.

#### • Chemical Resistance :

**Broad Chemical Compatibility** : Resistant to a wide variety of chemicals, including acids, bases, and solvents, making it versatile for different types of fluids.

**Non-adhesive Surface** : Reduces the likelihood of chemical build-up or blockages, ensuring smooth operation over time.

• **Transparency** : Visual Monitoring : The clear tubing allows for easy visual inspection of the fluid being transported, which is vital for ensuring process integrity in critical applications.

### Applications:

- **Pharmaceutical Manufacturing** : Ideal for drug formulation, sterile fluid transfer, and other processes where purity and sterility are paramount.
- **Biotechnology** : Used in the production of biological products, including cell culture and fermentation processes.
- **Food and Beverage Industry** : Suitable for transferring consumable liquids, where long-term, reliable pumping is required.
- **Laboratory Research** : Often employed in experimental setups requiring continuous fluid flow for long durations.
- **Medical Devices** : Utilized in devices that require consistent fluid delivery, such as infusion pumps or dialysis machines.

## CERTIFICATION



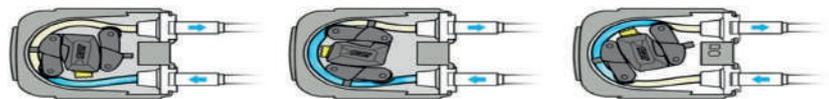
## STANDARD SIZES FOR IMPURE-PPL PERISTALTIC PUMPS TUBES

SIZE				
ID		OD		WT
INCH	MM	INCH	MM	MM
0.047	1.2	0.173	4.4	1.6
0.059	1.5	0.185	4.7	1.6
0.063	1.6	0.125	3.17	0.785
0.079	2	0.236	6	2
0.094	2.4	0.22	5.6	1.6
0.118	3	0.315	8	2.5
0.122	3.1	0.187	4.76	0.83
0.126	3.2	0.252	6.4	1.6
0.126	3.2	0.185	4.7	0.75
0.157	4	0.236	6	1
0.185	4.7	0.437	11.1	3.2
0.187	4.76	0.374	9.5	2.37
0.187	4.76	0.311	7.9	1.57
0.189	4.8	0.378	9.6	2.4
0.197	5	0.394	10	2.5
0.197	5	0.315	8	1.5
0.217	5.5	0.394	10	2.25
0.236	6	0.472	12	3
0.236	6	0.354	9	1.5
0.236	6	0.394	10	2
0.25	6.35	0.5	12.7	3.175
0.25	6.35	0.437	11.11	2.38
0.25	6.35	0.374	9.5	1.575
0.256	6.5	0.441	11.2	2.35
0.311	7.9	0.437	11.11	1.605
0.311	7.9	0.5	12.7	2.4

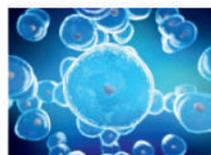
SIZE				
ID		OD		WT
INCH	MM	INCH	MM	MM
0.311	7.9	0.685	17.4	4.75
0.315	8	0.512	13	2.5
0.315	8	0.551	14	3
0.315	8	0.472	12	2
0.315	8	0.433	11	1.5
0.315	8	0.63	16	4
0.354	9	0.591	15	3
0.374	9.5	0.626	15.9	3.2
0.374	9.5	0.5	12.7	1.6
0.374	9.5	0.562	14.28	2.39
0.378	9.6	0.567	14.4	2.4
0.394	10	0.709	18	4
0.394	10	0.63	16	3
0.394	10	0.551	14	2
0.472	12	0.709	18	3
0.472	12	0.63	16	2
0.5	12.7	0.75	19.05	3.175
0.625	15.87	0.875	22.22	3.175
0.63	16	0.945	24	4
0.709	18	1.181	30	6
0.748	19	1.063	27	4
0.748	19	0.984	25	3
0.75	19.05	1	25.4	3.175
0.984	25	1.378	35	5
0.787	20	1.024	26	3
1.496	38	2.205	56	9



Explore the biopharma production process



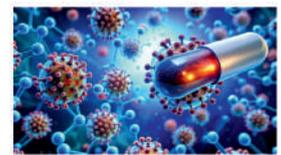
PERISTALTIC PUMPS



CELL CULTURE PROCESS



AMPULE & VIAL FILLING



DRUG DELIVERY SYSTEM

## CERTIFICATION



## CERTIFICATION COMPARISON CHART

SPECIFICATIONS	M-PURE-FLOW	M-PURE-PPL
Extractable and leachable studies	NABL Approved Lab	NABL Approved Lab
DMF Registration Letter	Available	Available
FDA 21 CFR 177.2600 (USA Food Grade Certificate)	Available	Available
EP 3.1.9	Available	Available
USP Class VI	Available	Available
Phthalate/Biphenyl Free COA	Available	Available
RoHS Certification	Available	Available
TSE/BSE Certification	Available	Available
Physical Property Test Report	Available	Available
German Bfr XV (German food grade COA)	Available	Available
France Arrete du 25 (France Food Grade COA)	Available	Available
Shelf Life	5 years	5 years

## STERILIZATION METHODS: SINCE 2005

- Steam
- Gamma
- ETO



Explore the biopharma production process



CELL CULTURE PROCESS

AMPULE & VIAL FILLING

DRUG DELIVERY SYSTEM



## SILICONE TUBING FOR FOOD AND DAIRY

**M-Pure-Pex** Silicone tubing is widely used in the dairy industry due to its excellent properties, including high flexibility, thermal stability, and chemical resistance. In dairy applications, silicone tubing is essential for transferring milk and other dairy products while maintaining the highest standards of hygiene and product safety.

### Uses and Applications in the Food and Dairy Industry :

- **Milking Systems:** Used in milking machines to transfer milk from cows to storage tanks, ensuring that the milk is collected efficiently and safely.
- **Dairy Processing Equipment:** Integrated into pasteurizers, separators, and other processing equipment where dairy products are heated, cooled, and processed.
- **Filling and Packaging:** Used in systems that fill and package milk, yogurt, cream, and other dairy products, ensuring a contamination-free transfer.
- **Cleaning-in-Place (CIP) Systems:** Utilized in cleaning systems within dairy processing plants, where strong cleaning agents are circulated through the tubing to sanitize equipment without disassembly.
- **Fluid Transfer in Dairy Plants:** Used for transferring water, cleaning agents, and other fluids necessary for the operation and maintenance of dairy equipment.

### Characteristics of Silicone Tubing for Dairy Applications

- **Food-Grade Quality:** Made from food-grade silicone, the tubing is non-toxic, odorless, and tasteless, ensuring that it does not alter the flavor or quality of the dairy products.
- **Flexibility:** Silicone tubing remains flexible at a wide range of temperatures, allowing for easy installation and operation in dairy systems.
- **Thermal Stability:** Withstands extreme temperatures, typically from -60°C to 200°C (-76°F to 392°F), making it suitable for both hot and cold dairy processes.
- **Chemical Resistance:** Resistant to acids, bases, and cleaning agents commonly used in the dairy industry, ensuring longevity and performance.
- **Durability:** Highly resistant to wear and tear, ozone, UV light, and weathering, which is crucial for the demanding conditions in dairy processing.
- **Low Permeability:** Prevents the absorption of gases and liquids, ensuring that the tubing does not compromise the purity of the dairy products.
- **Non-stick Properties:** Reduces the buildup of residues inside the tubing, making it easier to clean and maintain.

### Compliance and Certification :

- FDA 21 CFR 177.2600
- TSE/BSE FREE
- PHATHALATE FREE
- LAB TEST REPORT
- Nitrosamine Impurities Free Declaration

### Original Packaging :

Keep the tubing in its original packaging or a sealed container to protect against UV, dust and environmental contaminants.

## CERTIFICATION





## PEROXIDE CURED SILICONE TUBE

**M-Pure-Pex** Peroxide cured silicone tubing is a type of silicone tubing manufactured using a peroxide-based curing process. This method involves using organic peroxides as a catalyst to vulcanize the silicone, which cross-links the polymer chains and gives the tubing its final physical properties. Peroxide curing is one of the more traditional methods of curing silicone, and it produces a tubing material with good mechanical properties, though it may have some residual by-products compared to platinum-cured silicone.

### Uses and Applications :

- **General Industrial Applications:** Commonly used in industrial settings for fluid and gas transfer, particularly where high flexibility and resistance to heat are required.
- **Automotive Industry:** Employed in various automotive components, such as coolant and heating hoses, where temperature resistance and durability are critical.
- **Household Appliances:** Used in appliances like washing machines, dishwashers, and coffee machines, where it can handle the heat and chemicals used in these devices.
- **Medical Devices:** Although less common than platinum-cured silicone in medical applications, it can still be used in certain non-critical medical devices and equipment.
- **Food and Beverage Industry:** Applicable in food-grade applications where the process conditions allow for peroxide-cured materials, typically for non-critical fluid transfer tasks.
- **Sealing and Gaskets:** Used to create seals and gaskets that require a flexible, durable material capable of withstanding various temperatures and environmental conditions.

### Characteristics

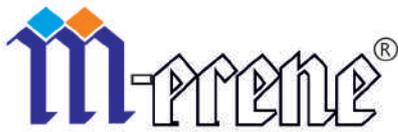
- **Temperature Resistance:** Peroxide cured silicone tubing typically handles a temperature range from  $-60^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  ( $-76^{\circ}\text{F}$  to  $392^{\circ}\text{F}$ ), making it suitable for both low and high-temperature applications.
- **Mechanical Strength:** It has good tensile strength and tear resistance, providing durability in demanding applications.
- **Flexibility:** Maintains flexibility even at lower temperatures, which helps in applications that require bending and movement.
- **Chemical Resistance:** Resistant to many chemicals, including acids and bases, although not as broad-spectrum as platinum-cured silicone.
- **Residual By-products:** Peroxide curing can leave behind small amounts of by-products, which may affect its suitability for some high-purity applications.
- **Cost-Effective:** Generally less expensive than platinum-cured silicone tubing, making it a cost-effective option for many general-purpose applications.

### Compliance and Certification :

- FDA 21 CFR 177.2600
- TSE/BSE FREE
- PHATHALATE FREE
- LAB TEST REPORT
- Nitrosamine Impurities Free Declaration

## CERTIFICATION





## THERMOPLASTIC ELASTOMER (TPE) TUBE

Thermoplastic elastomer (TPE) tubing is a flexible, durable tubing made from thermoplastic elastomers, a class of materials that combine the properties of both plastics and rubbers. TPEs offer the processing advantages of thermoplastics, such as easy molding and extrusion, along with the elastic properties of rubbers, such as flexibility and resilience. This unique combination makes TPE tubing a versatile choice for various applications across multiple industries.

### Uses and Applications :

- **Medical Devices:** TPE tubing is widely used in medical applications, such as IV lines, catheters, and respiratory equipment, due to its flexibility, biocompatibility, and sterilizability.
- **Pharmaceutical Industry:** Employed in the production, processing, and transfer of pharmaceuticals where chemical resistance and purity are crucial.
- **Food and Beverage Industry:** Utilized for fluid transfer in food and beverage production and packaging due to its compliance with food safety standards and resistance to various chemicals.
- **Automotive Industry:** Applied in fuel lines, brake systems, and other automotive components, where its durability and resistance to heat and chemicals are important.
- **Industrial Applications:** Used in fluid and gas transfer systems, chemical processing, and pneumatic applications where flexibility and chemical resistance are required.
- **Consumer Products:** Found in various household and personal care products, such as tubing for appliances, sports equipment, and toys, where safety, flexibility, and durability are essential.

### Characteristics :

- **Flexibility and Elasticity:** TPE tubing is highly flexible and elastic, making it suitable for applications that require repeated bending or movement without compromising the integrity of the tubing.
- **Chemical Resistance:** TPE tubing is resistant to a wide range of chemicals, including oils, acids, and bases, making it ideal for use in harsh environments.
- **Temperature Range:** Typically operates within a temperature range of -40°C to 120°C (-40°F to 248°F), depending on the specific TPE formulation, allowing it to be used in both hot and cold applications.
- **Durability:** Resistant to abrasion, tearing, and wear, providing a long service life even in demanding conditions.
- **Low Permeability:** Offers low permeability to gases and liquids, making it suitable for applications requiring containment of sensitive or hazardous substances.
- **Biocompatibility:** Often biocompatible, making it safe for medical and pharmaceutical applications that involve direct contact with human tissues or fluids.
- **Environmentally Friendly:** TPEs are recyclable and generally require less energy to produce compared to traditional rubber materials, contributing to their environmental benefits.

### Advantages Over Other Materials

- **Processing Ease:** TPEs can be easily molded, extruded, and processed using conventional thermoplastic processing equipment, which reduces manufacturing costs and complexity.
- **Wide Range of Properties:** TPEs can be formulated to meet specific application needs, offering a balance of flexibility, strength, and chemical resistance tailored to the task.
- **Cost-Effective:** TPE tubing is often more cost-effective than silicone or other high-performance elastomers, providing a good balance between performance and price.



## FKM RUBBER TUBE

**M-Fluorochem** FKM (Fluoroelastomer) rubber tubing is a type of high-performance elastomeric tubing made from fluoroelastomers, known for their exceptional resistance to chemicals, heat, and environmental factors. FKM is often referred to by the brand names Viton® or other proprietary names, depending on the manufacturer.

### Characteristics

- **Chemical Resistance:** FKM tubing exhibits excellent resistance to a wide range of chemicals, including oils, fuels, acids, and solvents. This makes it ideal for use in harsh chemical environments where other materials might degrade.
- **Temperature Resistance:** It can withstand a broad temperature range, typically from -20°C to 200°C (-4°F to 392°F), with some formulations capable of enduring even higher temperatures. This makes it suitable for both high and low-temperature applications.
- **Oil and Fuel Resistance:** Particularly effective in environments where exposure to hydrocarbons or oils is common, such as in automotive and industrial applications.
- **Weather and Ozone Resistance :** FKM tubing is highly resistant to weathering, UV light, and ozone, which contributes to its longevity and durability in outdoor or exposed conditions.
- **Mechanical Strength:** Offers good tensile strength, elasticity, and resistance to wear and abrasion, maintaining its integrity under mechanical stress.
- **Low Permeability:** Exhibits low permeability to gases and liquids, which helps in maintaining the purity of transported fluids and preventing leaks.

### Uses and Applications :

- **Automotive Industry :** Used in fuel lines, oil lines, and other components where high resistance to heat and chemicals is required.
- **Aerospace:** Applied in fuel and hydraulic systems, where its ability to withstand extreme temperatures and harsh chemicals is essential.
- **Chemical Processing :** Utilized in environments where strong acids, bases, or solvents are handled, due to its chemical resistance.
- **Industrial Equipment :** Employed in various industrial applications, including pumps, valves, and seals, where exposure to harsh chemicals or high temperatures occurs.
- **Food and Beverage Industry:** In some cases, FKM tubing is used where its chemical resistance is necessary, but it must comply with specific food-grade certifications for safe contact with food.

### Compliance and Certification :

- |                               |                |                    |                             |
|-------------------------------|----------------|--------------------|-----------------------------|
| - FDA 21 CFR 177.2600         | - USP Class VI | - TSE/BSE FREE     | - PHATHALATE FREE           |
| - Leachable Extractable Test- | BPA FREE       | - Plasticizer FREE | - RoHS and REACH Compliance |
| - Nitroamine Free Declaration |                |                    |                             |



## PTFE (TEFLON®) TUBING FOR CORROSIVE FLUID TRANSFER APPLICATION

PTFE tubing is a type of fluoropolymer tubing renowned for its superior chemical resistance, making it particularly suitable for transferring corrosive fluids. PTFE, often recognized by the brand name Teflon®, is an excellent choice for applications involving aggressive chemicals and extreme conditions due to its unique properties.

### Characteristics

- **Chemical Resistance:** PTFE tubing offers exceptional resistance to a wide range of chemicals, including acids, bases, solvents, and oxidizers. This makes it ideal for handling corrosive fluids and aggressive chemicals without degrading.
- **Temperature Resistance:** It can operate over a broad temperature range, typically from -200°C to 260°C (-328°F to 500°F). This wide temperature tolerance ensures it can be used in both very high and low-temperature environments.
- **Non-Stick Surface:** PTFE's non-stick properties prevent the adhesion of chemicals and other substances, making it easy to clean and reducing the risk of contamination.
- **Low Friction:** PTFE tubing has a low coefficient of friction, which facilitates smooth fluid flow and reduces resistance in the system.
- **Electrical Insulation:** Provides excellent electrical insulation properties, which is beneficial in applications involving electrical components or where dielectric properties are required.
- **Clarity:** Often available in a clear or translucent form, PTFE tubing allows for visual inspection of the fluid flow and condition within the tubing.

### Uses and Applications :

- **Chemical Processing:** Used extensively in chemical processing industries for transferring highly corrosive chemicals and solvents. Its resistance to chemicals ensures longevity and reliability in harsh environments.
- **Pharmaceutical Industry:** Employed in pharmaceutical manufacturing and processing where high purity and resistance to contamination are crucial.
- **Laboratories:** Utilized in laboratory settings for transferring and handling corrosive and reactive fluids due to its inert nature.
- **Food and Beverage Industry:** Used in some food processing applications where its non-reactive and clean properties help maintain product purity.
- **Electronics and Electrical:** Applied in electronics and electrical systems for insulation and protection of wires and components, thanks to its excellent dielectric properties.

### Compliance and Certification :

- |                              |                             |                               |
|------------------------------|-----------------------------|-------------------------------|
| - FDA 21 CFR 177.2600        | - TSE/BSE FREE              | - PHATHALATE FREE             |
| - Leachable Extractable Test | - ROHS and REACH Compliance | - Nitroamine Free Declaration |

### Conclusion :

PTFE tubing is highly effective for corrosive fluid transfer applications due to its exceptional chemical resistance, wide temperature range, and non-stick properties. Its ability to handle aggressive chemicals and maintain performance in extreme conditions makes it a reliable choice for various industrial, pharmaceutical, and laboratory applications. Proper storage and adherence to compliance standards ensure that PTFE tubing remains effective and durable in its intended uses.



### STANDARD M-FLUOROTEF PTFE TUBING SIZES

SIZES				
ID		OD		THICKNESS
INCH	MM	INCH	MM	INCH
1/16	1.60	1/8	3.17	1/32
1/16	1.60	13/64	4.76	1/16
1/16	1.6	1/4	6.4	3/32
1/32	0.8	5/32	4	1/16
1/32	0.8	7/32	5.6	3/32
1/64	0.5	9/64	3.7	1/16
1/64	0.5	13/64	5.3	3/32
5/64	2.00	5/32	4.00	3/64
5/64	2.00	13/64	5.00	1/16
1/8	3.17	1/4	6.35	1/16
1/8	3.00	1/4	6.00	1/16
1/8	3.00	9/32	7.00	5/64
1/8	3.00	5/16	8.00	2.32
5/32	4.00	1/4	6.00	3/64
5/32	4.00	9/32	7.00	1/16
5/32	4.00	5/16	8.00	5/64
5/32	4.00	23/64	9.00	3/32
5/32	4.00	25/64	10.0	1/8
3/16	4.76	5/16	7.90	1/16
3/16	4.76	3/8	9.50	3/32
3/32	2.4	7/32	5.6	1/16
3/64	1.2	11/64	4.4	1/16
13/64	5.00	5/16	8.00	1/16
13/64	5.00	23/64	9.00	5/64
13/64	5.00	25/64	10.0	3/32
13/64	5.00	7/16	11.0	1/8
15/64	6.00	5/16	8.00	3/64
15/64	6.00	23/64	9.00	1/16
15/64	6.00	25/64	10.0	5/64
15/64	6.00	7/16	11.0	3/32
15/64	6.00	15/32	12.0	1/8
1/4	6.35	3/8	9.50	1/16
1/4	6.35	7/16	11.11	3/32
1/4	6.35	1/2	12.70	1/8
5/16	7.90	1/2	12.70	3/32
5/16	8.00	7/16	11.0	1/16

SIZES				
ID		OD		THICKNESS
INCH	MM	INCH	MM	INCH
5/16	8.00	15/32	12.0	5/64
5/16	8.00	35/64	14.0	1/8
5/16	8.00	5/8	16.0	5/32
5/16	8	1/2	12.8	3/32
23/64	9.00	19/32	15.0	1/8
23/64	9.00	5/8	16.0	9/64
3/8	9.50	1/2	12.70	1/16
3/8	9.50	9/32	14.28	3/32
3/8	9.50	5/8	15.87	1/8
3/8	9.50	3/4	19.05	3/16
25/64	10.0	35/64	14.0	5/64
25/64	10.0	5/8	16.0	1/8
25/64	10.0	45/64	18.0	5/32
15/32	12.0	5/8	16.0	5/64
15/32	12.0	45/64	18.0	1/8
15/32	12.0	25/32	20.0	5/32
1/2	12.70	11/16	17.46	3/32
1/2	12.70	3/4	19.05	1/8
1/2	12.70	7/8	22.22	3/16
1/2	12.70	1	25.40	1/4
19/32	15.0	53/64	21.0	1/8
5/8	15.87	7/8	22.22	1/8
5/8	15.87	1	25.40	3/16
5/8	16.00	15/16	24.0	5/32
3/46	19.00	3/64	25.0	1/8
3/4	19.00	1-1/16	27.0	5/32
3/4	19.05	1	25.4	1/8
3/4	19.05	1-1/8	28.57	3/16
3/4	19.05	1-1/4	31.75	1/4
63/64	25.0	1-7/32	31.0	1/8
63/64	25.0	1-3/8	35.0	13/64
63/64	25.0	1-29/64	37.0	15/64
1	25.40	1-1/8	28.75	3/16
1	25.40	1-1/2	38.10	1/4
1	25.4	3/8	35	3/16

#### Compliance and Certification :

- FDA 21 CFR 177.2600
- PHATHALATE FREE
- RoHS and REACH Compliance
- TSE/BSE FREE
- Leachable Extractable Test
- Nitroamine Free Declaration

#### CERTIFICATION





## PLATINUM CURED SILICONE HOSE REINFORCED WITH POLYESTER BRAIDING

**M-Poly-PTFlex** Platinum cured silicone hose reinforced with polyester braiding is a high-performance hose designed to offer superior durability, flexibility, and strength. This type of hose combines the benefits of platinum-cured silicone with the mechanical reinforcement provided by polyester braiding.

### Characteristics

- **Platinum Cured Silicone:**

**Biocompatibility :** Platinum curing ensures that the silicone is biocompatible, making it suitable for medical and pharmaceutical applications where contact with human tissues or fluids is involved.

**High Purity :** Platinum-cured silicone is free from by-products that can leach into fluids, maintaining the purity of the transferred media.

**Temperature Resistance:** It can handle a broad temperature range, typically from -50°C to 200°C (-58°F to 392°F), suitable for both high and low-temperature applications.

**Flexibility and Elasticity:** Offers excellent flexibility and elasticity, allowing it to handle repeated bending and flexing without cracking or losing its shape.

- **Polyester Braiding :**

**Reinforcement:** Polyester braiding provides mechanical reinforcement, enhancing the hose's tensile strength and pressure resistance.

**Durability:** Increases the hose's resistance to abrasion, impact, and mechanical stress, extending its service life.

**Structural Integrity:** Helps maintain the hose's shape under pressure and reduces the likelihood of collapse or deformation.

### Uses and Applications :

- **Medical Devices :** Used in medical and pharmaceutical applications for fluid and gas transfer where biocompatibility and high purity are essential. Common applications include IV lines, catheters, and diagnostic equipment.

- **Food and Beverage Industry:** Applied in the processing and transfer of food and beverages where the hose must meet strict hygiene standards and maintain the quality and safety of the products.

- **Chemical Processing :** Suitable for handling chemicals and aggressive fluids due to its chemical resistance and reinforced structure.

- **Industrial Applications :** Employed in various industrial settings where durability and resistance to mechanical stress are required, such as in pumps, compressors, and machinery.

- **Automotive :** Used in automotive applications for fluid transfer, where resistance to high temperatures and pressure is needed.

### Characteristics :

**High Purity and Safety :** Platinum curing ensures that the silicone is free from harmful by-products, making it safe for sensitive applications.

**Pressure Resistance :** The polyester braiding enhances the hose's ability to withstand high pressures and reduces the risk of burst or deformation.

**Flexibility and Ease of Handling :** The silicone provides flexibility and ease of handling, while the polyester braiding ensures the hose retains its shape and integrity under pressure.

**Temperature and Chemical Resistance:** Maintains performance across a wide temperature range and resists various chemicals, making it versatile for different environments.

### Compliance and Certification

US FDA Compliance      - USP Class VI      - TSE/BSE FREE      - PHATHALATE FREE      - Extractable Leachable  
BPA FREE      - RoHS Compliance



## PLATINUM CURED SILICONE HOSE REINFORCED WITH SS 316L HELICAL WIRE

**M-HelicFlex** Platinum cured silicone hose reinforced with SS 316L helical wire is designed for demanding applications requiring both flexibility and high strength. This hose combines the high purity and flexibility of platinum-cured silicone with the durability and mechanical reinforcement of SS 316L stainless steel helical wire.

### Characteristics :

- Platinum Cured Silicone :
- Biocompatibility : Platinum curing ensures that the silicone is biocompatible, making it suitable for medical and pharmaceutical applications where contact with bodily fluids or sensitive substances is required.
- Temperature Resistance : Can handle a wide temperature range, typically from  $-50^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$  to  $392^{\circ}\text{F}$ ), suitable for extreme hot and cold conditions.
- Chemical Resistance : Provides good resistance to various chemicals, including acids, bases, and solvents, though not as resistant as fluoro polymers.
- Flexibility and Elasticity : Maintains excellent flexibility and elasticity, allowing for easy bending and movement without cracking.
- SS 316L Helical Wire Reinforcement :
- High Strength : SS 316L helical wire reinforcement offers robust mechanical strength, enabling the hose to withstand high pressures and resist deformation.
- Corrosion Resistance : SS 316L is highly resistant to corrosion, making it suitable for use in harsh or corrosive environments.
- Structural Integrity : Helps maintain the hose's shape under pressure and prevents collapse, ensuring reliable performance.

### Uses and Applications

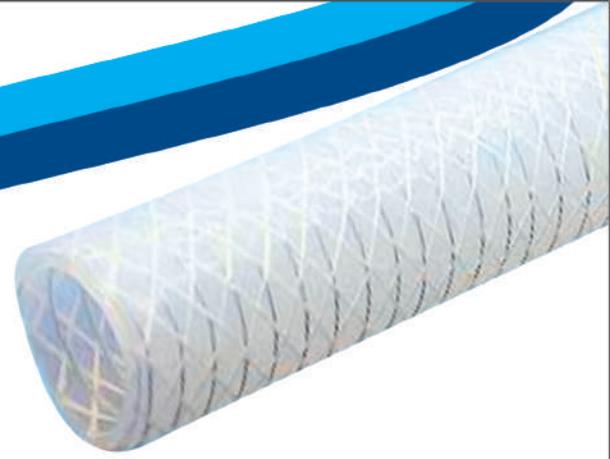
- Medical Devices : Ideal for medical applications such as IV lines, catheters, and other fluid transfer systems where high purity, flexibility, and strength are required.
- Pharmaceutical Industry : Used in the pharmaceutical sector for transferring drugs and biologics, where contamination-free handling and mechanical integrity are crucial.
- Chemical Processing : Suitable for handling aggressive chemicals and fluids in industrial settings due to its chemical resistance and reinforcement.
- Food and Beverage Processing : Applied in food and beverage industries for fluid transfer, where hygiene, durability, and resistance to contamination are essential.
- Industrial Applications: Employed in various industrial applications, including hydraulic systems and machinery, where high pressure and mechanical stresses are common.
- Automotive : Used in automotive systems for fluids that require high-temperature and pressure resistance.

### Characteristics :

- High Purity : Platinum curing ensures the hose is free from contaminants, maintaining the purity of the transferred media.
- Enhanced Strength : SS 316L helical wire reinforcement provides high pressure resistance and durability, reducing the risk of hose failure.
- Flexibility : Despite the metal reinforcement, the silicone offers excellent flexibility and ease of handling.
- Temperature and Chemical Resistance: Capable of withstanding extreme temperatures and resisting various chemicals, making it versatile for different applications.

### Conclusion :

Platinum cured silicone hose reinforced with SS 316L helical wire provides a high-performance solution for applications demanding flexibility, high pressure resistance, and durability. Its combination of excellent chemical resistance, temperature tolerance, and mechanical strength makes it suitable for medical, pharmaceutical, food processing, chemical, and industrial uses. Proper storage and adherence to relevant compliance standards ensure the hose maintains its performance and reliability over time.



## PLATINUM CURED SILICONE HOSE REINFORCED WITH POLYESTER BRAIDING AND SS 316L HELICAL WIRE

Platinum cured silicone hose reinforced with both polyester braiding and SS 316L helical wire combines multiple reinforcement methods to deliver exceptional strength, flexibility, and durability. This hose is designed to perform well under high pressure and demanding conditions, making it suitable for a wide range of applications.

### Characteristics

- **Platinum Cured Silicone:**
- **Biocompatibility:** Platinum curing ensures the silicone is biocompatible, making it ideal for medical and pharmaceutical applications where purity is essential.
- **Temperature Resistance:** Handles a broad temperature range, typically from -50°C to 200°C (-58°F to 392°F), suitable for extreme temperatures.
- **Chemical Resistance:** Offers good resistance to many chemicals, including acids, bases, and solvents, though not as extensive as some fluoropolymers.
- **Flexibility and Elasticity:** Provides excellent flexibility and elasticity, allowing the hose to bend and flex without cracking.
- **Polyester Braiding:**
- **Enhanced Strength:** Polyester braiding adds mechanical strength to the hose, improving its ability to withstand internal pressures and mechanical stresses.
- **Durability:** Increases resistance to abrasion and impact, extending the hose's service life.
- **Structural Integrity:** Helps maintain the hose's shape and prevents collapse under pressure, ensuring consistent performance.
- **SS 316L Helical Wire:**
- **High Pressure Resistance:** SS 316L helical wire reinforcement provides additional mechanical strength, enabling the hose to handle higher pressures without deformation.
- **Corrosion Resistance:** SS 316L offers excellent resistance to corrosion, making the hose suitable for harsh or corrosive environments.
- **Structural Stability:** Prevents collapse and maintains the hose's shape under pressure, ensuring reliable and consistent performance.

### Uses and Applications:

- **Medical Devices:** Suitable for medical applications like IV lines, catheters, and fluid transfer systems where high purity, flexibility, and strength are essential.
- **Pharmaceutical Industry:** Ideal for transferring pharmaceuticals and biologics, where contamination-free handling and robust construction are crucial.
- **Food and Beverage Processing:** Applied in food and beverage industries for fluid transfer, where hygiene, durability, and resistance to contamination are necessary.

### Characteristics:

- **High Purity:** Platinum curing ensures the hose is free from contaminants, maintaining fluid purity and safety.
- **Enhanced Strength and Pressure Resistance:** The combination of polyester braiding and SS 316L helical wire provides exceptional strength, pressure resistance, and durability.
- **Flexibility:** The silicone provides flexibility despite the additional reinforcements, allowing for ease of handling and installation.
- **Temperature and Chemical Resistance:** Capable of withstanding extreme temperatures and resisting a wide range of chemicals, making it versatile for various applications.



## SILICONE INFLATABLE SEALS AND GASKETS

**M-Inflat Seal** Silicone inflatable seals and gaskets are specialized components designed to create airtight or watertight seals in various applications. They are used where a flexible, adaptable seal is required, and they can be inflated to ensure a tight fit.

### Characteristics :

- **Silicone Material:**
- **Temperature Resistance:** Silicone remains stable across a wide temperature range, typically from -50°C to 200°C (-58°F to 392°F), making it suitable for high and low-temperature environments.
- **Flexibility and Elasticity:** Offers excellent flexibility and elasticity, allowing it to conform to irregular surfaces and maintain a seal.
- **Chemical Resistance:** Resistant to many chemicals, oils, and solvents, though it may not be suitable for extremely aggressive chemicals.
- **Inflatable Design:**
- **Adjustable Sealing:** Inflatable seals can be adjusted by controlling the amount of inflation, allowing for custom sealing pressures and sizes.
- **Conformability:** Inflated seals can conform to complex shapes and gaps, providing a customizable and effective seal.
- **Compression Resistance:** Can withstand compression and maintain a seal even when subjected to pressure or impact.
- **Gasket Integration :**
- **Enhanced Seal:** Silicone inflatable gaskets combine the benefits of inflatable seals with traditional gasket properties, offering a high-performance seal in dynamic applications.
- **Durability:** The silicone material provides long-lasting performance and resistance to environmental factors.

### Uses and Applications :

- **Pharmaceutical industries :** Fluid bed dryer, processor, coaters, Autoclave, Sterilizer, Isolator, Glovebox, RMG, Robotics.
- **Aerospace applications** to ensure seals in high-pressure and temperature variations, such as in aircraft doors and hatches.
- **Industrial Machinery :** Utilized in industrial equipment and machinery for creating seals in areas with varying pressures and temperatures.
- **HVAC Systems:** Used in heating, ventilation, and air conditioning systems to provide airtight or watertight seals in ducts and components.

### Characteristics :

- **Flexible and Adjustable:** The inflatable nature allows for a customizable seal that can adapt to various shapes and sizes.
- **Temperature and Chemical Resistance:** The silicone material ensures durability and performance across a range of temperatures and in contact with many chemicals.
- **Conformability:** Can conform to irregular surfaces, providing an effective seal even in challenging applications.

### Compliance and Certification :

- |                              |                |                    |                             |
|------------------------------|----------------|--------------------|-----------------------------|
| - FDA 21 CFR 177.2600        | - USP Class VI | - TSE/BSE FREE     | - PHATHALATE FREE           |
| - Leachable Extractable Test | - BPA FREE     | - Plasticizer FREE | - RoHS and REACH Compliance |



## EXTRUDED PROFILES : SILICONE, FKM, AND EPDM

**M-Tech** Extruded profiles refer to continuous shapes or sections made from materials like silicone, FKM (fluoroelastomer) and EPDM (ethylene propylene diene monomer) through an extrusion process. Each material has specific characteristics that make it suitable for different applications.

### • Silicone Extruded Profiles

#### SILICON Characteristics :

- Temperature Range: Typically operates from -50°C to 200°C (-58°F to 392°F), with some formulations handling temperatures up to 250°C (482°F).
- Flexibility and Elasticity: Offers excellent flexibility and elasticity, retaining its shape and performance under various conditions.
- Chemical Resistance: Provides good resistance to many chemicals, including water, acids, and bases.
- UV and Ozone Resistance: Excellent resistance to UV light and ozone, making it suitable for outdoor applications.

#### Uses and Applications:

- Medical Devices: Seals and gaskets in medical equipment due to its biocompatibility.
- Food and Beverage: Seals and gaskets in processing equipment to ensure hygiene and safety.
- Electronics: Insulation and protection in electronic devices.
- FKM (Fluoroelastomer) Extruded Profiles

#### EPDM Characteristics :

- Temperature Range: Generally handles temperatures from -20°C to 250°C (-4°F to 482°F) and can withstand intermittent higher temperatures.
- Chemical Resistance: Exceptional resistance to a wide range of chemicals, including fuels, oils, and aggressive solvents.
- Heat Resistance: Maintains performance at high temperatures, making it suitable for demanding applications.
- Flammability: Low flammability and self-extinguishing properties.

#### Uses and Applications :

- Aerospace: Seals and gaskets in high-temperature and high-pressure environments.
- Chemical Processing: Seals and gaskets in systems handling aggressive chemicals.
- Industrial: High-performance seals in extreme environments.
- EPDM (Ethylene Propylene Diene Monomer) Extruded Profiles

#### FKM Characteristics :

- Temperature Range : Typically operates from -40°C to 120°C (-40°F to 248°F), with some variations extending up to 150°C (302°F).
- Weather and Ozone Resistance: Excellent resistance to weathering, ozone, and UV radiation.
- Flexibility: Maintains flexibility even at low temperatures.
- Chemical Resistance: Good resistance to water, steam, and many chemicals, though less effective against oils and fuels compared to FKM.

#### Uses and Applications :

- Construction: Seals and gaskets in building and construction applications.
- HVAC: Seals and gaskets in heating, ventilation, and air conditioning systems.
- Industrial: Seals and gaskets in machinery and equipment exposed to environmental conditions.

#### Compliance and Certification :

- |                              |                |                    |                    |
|------------------------------|----------------|--------------------|--------------------|
| - FDA 21 CFR 177.2600        | - USP Class VI | - TSE/BSE FREE     | - PHATHALATE FREE  |
| - Leachable Extractable Test | - BPA FREE     | - Plasticizer FREE | - RoHS and REACH C |



## TRI-CLAMP (TRI-CLOVER) GASKETS : SILICONE, FKM, AND EPDM

**M-Tech Tri-Clamp** or Tri-Clover gaskets are used in sanitary piping systems to create a secure and leak-proof seal between tri-clamp fittings. These gaskets are commonly found in industries where hygiene and cleanliness are paramount, such as food processing, pharmaceuticals, and biotechnology.

### Characteristics :

#### • Material Options :

- **Silicone** : Offers excellent temperature resistance (typically -50°C to 200°C / -58°F to 392°F), flexibility, and chemical resistance, making it suitable for a wide range of applications.
- **EPDM** (Ethylene Propylene Diene Monomer) : Known for its resistance to heat, ozone, and weathering, making it ideal for outdoor or high-temperature applications.
- **FKM (Viton®)** : Offers high chemical resistance and high-temperature tolerance, often used in more aggressive environments.

#### • Design Features:

- **Shape and Fit** : Designed to fit snugly into the grooves of tri-clamp fittings, creating a reliable seal.
- **Pressure Resistance** : Capable of withstanding moderate to high pressures, depending on the material and design.
- **Flexibility** : Provides flexibility to accommodate slight misalignments and variations in pipe dimensions.
- **Sanitary Design** :
- **Smooth Surface** : Designed to ensure a smooth, clean surface for easy cleaning and maintenance, minimizing areas where bacteria and contaminants could accumulate.
- **FDA and Food-Grade Compliance** : For applications involving food or pharmaceuticals, gaskets are often manufactured from materials that meet FDA or other regulatory standards for safety and hygiene.

### Uses and Applications :

- **Food and Beverage Processing** : Ensures sanitary connections in piping systems used for transferring liquids and solids in food and beverage manufacturing.
- **Pharmaceutical and Biotech Industries** : Provides hygienic seals in processes involving pharmaceutical and biotechnological products, where cleanliness and contamination prevention are critical.
- **Chemical Processing** : Used in chemical processing systems where resistance to various chemicals is necessary.
- **Brewery and Dairy** : Commonly used in breweries and dairy processing plants for sanitary and reliable sealing in equipment and pipelines.
- **General Industrial Use** : Applied in various industrial settings where tri-clamp fittings are used for secure and leak-proof connections.

### Characteristics :

- **Effective Sealing** : Provides a secure seal that prevents leaks and maintains system integrity.
- **Material Versatility** : Available in different materials to suit various temperature, chemical, and pressure requirements.
- **Sanitary Design** : Ensures clean and hygienic connections, crucial for applications involving food and pharmaceuticals.

### Compliance and Certification :

- |                              |                |                    |                    |
|------------------------------|----------------|--------------------|--------------------|
| - FDA 21 CFR 177.2600        | - USP Class VI | - TSE/BSE FREE     | - PHATHALATE FREE  |
| - Leachable Extractable Test | - BPA FREE     | - Plasticizer FREE | - RoHS and REACH C |



## SILICONE MOULDED SIFTER SIEVES

Silicone Moulded Sifter Sieves are specialized tools used for separating, sifting, and grading materials. These sieves are Moulded from silicone rubber, which provides several advantageous properties for various applications.

### Characteristics :

**Silicone Rubber :** Known for its flexibility, durability, and resistance to high temperatures. It is also non-reactive, which is beneficial for sensitive applications.

- **Temperature Resistance :** Typically withstands temperatures from -50°C to 250°C (-58°F to 482°F), making it suitable for both hot and cold environments.
- **Flexibility and Durability :**
- **Flexibility :** Silicone's inherent flexibility allows for easy handling and adaptability in various applications.
- **Durability :** Resistant to wear, tearing, and environmental factors like UV light and ozone, which contributes to a longer service life.
- **Non-Stick Surface :**
- **Ease of Cleaning :** Silicone's non-stick nature makes it easy to clean, ensuring that residues and particles do not adhere to the surface.
- **Chemical Resistance :**
- **Resistance :** Provides good resistance to a wide range of chemicals, making it suitable for use in industrial and laboratory settings.

### Uses and Applications

- **Food Processing :**
- **Applications :** Used for sifting and sieving various food products like flour, sugar, and spices to ensure uniformity and remove impurities.
- **Benefits :** Non-reactive and easy to clean, making it ideal for food contact applications.
- **Pharmaceuticals :**
- **Applications :** Employed in the pharmaceutical industry for sifting active ingredients and excipients to ensure consistency and purity.
- **Benefits :** Helps in maintaining high standards of hygiene and accuracy.
- **Chemical and Industrial :**
- **Applications :** Used in industries for separating powders and granules, and for quality control of raw materials.
- **Benefits :** Durable and resistant to chemical exposure, suitable for harsh environments.
- **Laboratories :**
- **Applications :** Utilized in laboratory settings for precise particle size analysis and sample preparation.
- **Benefits :** Provides accurate results and is easy to sterilize and clean.

### Advantages :

- **High-Temperature Resistance :** Can withstand a broad range of temperatures, making it versatile for different processes.
- **Ease of Cleaning :** Silicone's non-stick surface simplifies cleaning, reducing contamination risk.
- **Chemical Compatibility :** Resistant to many chemicals, enhancing its usability in various industrial processes.
- **Durability :** Withstands wear and tear, ensuring long-lasting performance.

### Compliance and Certification :

- |                              |                |                    |                    |
|------------------------------|----------------|--------------------|--------------------|
| - FDA 21 CFR 177.2600        | - USP Class VI | - TSE/BSE FREE     | - PHATHALATE FREE  |
| - Leachable Extractable Test | - BPA FREE     | - Plasticizer FREE | - RoHS and REACH C |



## SILICON, EPDM, PTFE DIAPHRAGMS

**M-Tech** Diaphragms are flexible membranes used to separate different chambers or fluids, control pressure, and provide a seal in various applications. Silicone, EPDM, and PTFE are common materials used for diaphragms, each offering unique properties suited to specific needs.

### Silicone Diaphragms

#### Characteristics:

- **Temperature Resistance:** Typically -50°C to 250°C (-58°F to 482°F). Silicone diaphragms can withstand high and low temperatures, making them versatile for various applications.
- **Flexibility:** Highly flexible and maintains elasticity over a wide temperature range.
- **Chemical Resistance:** Good resistance to many chemicals and is non-reactive with food products and pharmaceuticals.
- **Biocompatibility:** Often used in medical and food-grade applications due to its non-toxicity and biocompatibility.

#### Uses:

- **Medical Devices:** For pumps, valves, and other equipment requiring high sterilization standards.
- **Food and Beverage:** Used in equipment for handling food and drink, where cleanliness and chemical resistance are crucial.
- **Automotive:** In applications needing high temperature and chemical resistance.

#### Advantages:

- High temperature and chemical resistance.
- Excellent flexibility and durability.
- Non-toxic and biocompatible.

#### Characteristics:

- **Temperature Resistance:** Typically -40°C to 120°C (-40°F to 248°F). EPDM diaphragms are suited for moderate temperature ranges.
- **Flexibility:** Good flexibility but less than silicone.
- **Chemical Resistance:** Excellent resistance to water, steam, and ozone. However, it is not suitable for oils and hydrocarbons.
- **Weather Resistance:** Good resistance to UV light and ozone.

#### Uses:

- **HVAC Systems:** For sealing and pressure control in heating, ventilation, and air conditioning systems.
- **Automotive:** Used in applications exposed to water or steam, such as in cooling systems.
- **Industrial:** For applications requiring resistance to weather and ozone.

#### Advantages:

- Excellent resistance to water and ozone.
- Good weather resistance.
- Cost-effective compared to silicone.

### PTFE (Polytetrafluoroethylene) Diaphragms

#### Characteristics:

- **Temperature Resistance:** Typically -200°C to 260°C (-328°F to 500°F). PTFE can handle extreme temperatures.
- **Chemical Resistance:** Exceptional resistance to almost all chemicals, acids, and solvents.
- **Non-Stick Properties:** Non-stick surface makes it easy to clean and prevents contamination.

#### Uses:

- **Chemical Processing:** For handling aggressive chemicals and corrosive substances.
- **Pharmaceuticals:** In applications requiring high purity and resistance to chemical interactions.
- **Semiconductor Manufacturing:** For processes requiring high chemical resistance and cleanliness.

#### Advantages:

- Outstanding chemical resistance.
- Can withstand extreme temperatures.
- Non-stick and easy to clean.

# CERTIFICATION



# OUR ESTEEM CLIENTS

 Dedicated To Life	 Expressions for a Healthy Life	 Imagine. Innovate	
		 SUCCESS THROUGH INNOVATION	
 The Care Continues...			
		 Touching Lives over 100 years	 The Taste of India
 A new way for a new world.			
	 Caring for life		
		 Biotech for Mankind...	

# PRODUCTS



## CERTIFICATION



An ISO 9001:2015 Certified Company

## SHAH SEALTECH PRIVATE LIMITED

(Formally known as *Mahati polymer corporation*)

### REG. OFFICE :

212, Karma Ind. Estate, 5501/1, Phase-3, G.I.D.C.,  
Trikampura Cross Road, Vatva, Ahmedabad-382445. Gujarat, India.  
Office : +91 98243 76858, M : +91 91734 95999, +91 91738 95999  
Email: mahatipolycrop@yahoo.com | nsc\_engg@yahoo.com

[www.shahsealtech.com](http://www.shahsealtech.com)