

# M-Sil™

Braid Reinforced Pharmaceutical Grade Silicone Tubing



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Meissner's braid reinforced M-Sil™ silicone tubing is designed for high purity fluid transfer applications under pressure in biopharmaceutical manufacturing processes. The tubing is manufactured in a cleanroom with a single-braid reinforcement in between an inner ultra-pure lumen and an outer silicone layer. M-Sil™ braid reinforced tubing is clear and provides excellent flexibility and resilience. It is kink resistant.

## Biocompatibility

M-Sil™ braid reinforced tubing is manufactured from a platinum-catalyzed biomedical extrusion-grade silicone elastomer that is certified animal component free, exceeds United States Pharmacopeia Class VI Plastic Test requirements, and meets European Pharmacopeia monograph 3.1.9. Silicone Elastomer for Closures and Tubing. M-Sil™ braid reinforced tubing is not to be used for human implantation. The tubing has a low extractables profile and is supported with chemical characterization and extractables screening studies following ISO 10993-18, BPOG, and USP <665>.

## Operating Temperature Range

M-Sil™ braid reinforced tubing performs well over a wide range of operating temperatures from -70 °C to 180 °C (-94 °F to 356 °F)<sup>1</sup>, and is steam resistant up to 135 °C.

## Tensile Properties

Property	Test Method	Units	Value: Non-Sterile
Durometer hardness	ASTM D2240	Shore A	65
Specific gravity	ASTM D792	-	1.16
Tensile Strength	ASTM D412	MPa	8.3
		psi	1200
Elongation	ASTM D412	%	600
Tear Strength	ASTM D624, Die B	kN/m	33
		ppi	190

## Sterilization

M-Sil™ braid reinforced tubing can be sterilized by gamma irradiation, autoclave or SIP.

## Tubing Sizes

A wide selection of standard M-Sil™ braid reinforced tubing sizes are available. Custom sizes can be extruded. Please contact Meissner for details on larger master coils/spools and additional sizes.

## Ordering Information

M-Sil™ Part Number	Coil Length		Inner Diameter		Outer Diameter		Wall Thickness		Maximum Working Pressure at 21 °C (70 °F) <sup>1</sup>	
	ft.	m	in.	mm	in.	mm	in.	mm	psi	bar
91T73R30-C025	25	7.6	0.250	6.4	0.490	12.4	0.120	3.0	89	6.1
91T73R50-C025	25	7.6	0.375	9.5	0.625	15.9	0.125	3.2	106	7.3
91T73R60-C025	25	7.6	0.500	12.7	0.800	20.3	0.150	3.8	104	7.2
91T73R80-C025	25	7.6	0.750	19.0	1.100	27.9	0.175	4.4	74	5.1
91T73R90-C025	25	7.6	1.000	25.4	1.360	34.5	0.180	4.6	58	4.0

<sup>1</sup> It is the sole responsibility of the user to test M-Sil™ braid reinforced silicone tubing to determine functional suitability and safety in your specific application. When M-Sil™ braid reinforced silicone tubing is used in single-use assemblies, the pressure ratings of mechanical engagements may be less than the maximum working pressure stated.

