



Applications

This product is especially recommended in turbocharger system for industrial vehicles, due to the special inner silicone R/A layer (Oil Resistant layer) which has high capacity to withstand oil particles and/or hydrocarbons in suspension.

Limitations

Respect the work pressure established values

This type of tube is not recommended for applications with negative pressure (vacuum).

This product is not recommended for the transport of abrasive particles.

Regulations

The silicone for this hose is classified as M1 according to UNE 23.727-90 standard and as F2 according to NF F 16-101.

The burning, smoke and dripping class of this reference is S-3, SR-2 and ST-2 according to DIN 54837:2007 test standard and DIN 5510-2:2009 classification standard.

Silicone rubber used is in accordance with EU Directive 2002/95/ECC for Restriction of the use of hazardous substances (RoHS).

Properties

- Not affected by anti-freeze or antirust liquids.
- Highly resistant to hardening with very good compression characteristics.
- Excellent flexibility during the assembly process.
- Smooth inner and outer appearance. The R/A inner layer is brown red colored.
- Excellent resistance to thermal aging and oxidizing agents (oxygen, ozone, UV).
- Operational temperature range from -50°C (-58°F) to +180°C (356°F), it may reach up to 200°C (392°F) during short periods of time.
- The standard manufacturing length is 4 meters long (13.12 ft.), although it is available in shorter lengths if necessary.

Technical Specifications

Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009	
<i>mm</i>	<i>inch</i>	<i>+1/ -0.5 mm</i>	<i>+0.04/ -0.02 inch</i>	<i>Bar at 20°C</i>	<i>Psi at 68°F</i>	<i>Bar at 20°C</i>	<i>Psi at 68°F</i>
6	1/4	4.20	0.17	16.2	234.4	48.5	703.3
13	1/2	4.20	0.17	9.7	140.6	29.1	421.7
19	3/4	4.20	0.17	7.3	105.4	21.8	316.1
25	1	4.20	0.17	5.9	85.6	17.7	256.7
32	1 1/4	4.20	0.17	4.9	70.8	14.7	212.5
38	1 1/2	4.20	0.17	4.3	62.2	12.9	186.5
45	1 3/4	4.20	0.17	3.8	54.7	11.3	164.0
51	2	4.20	0.17	3.4	49.7	10.3	149.1
57	2 1/4	4.20	0.17	3.2	45.7	9.5	137.0
63	2 1/2	4.20	0.17	2.9	42.3	8.8	127.0
70	2 3/4	4.20	0.17	2.7	39.1	8.1	117.2
76	3	4.20	0.17	2.5	36.5	7.6	109.5
80	3 1/8	4.20	0.17	2.3	33.6	7.0	100.8
90	3 1/2	4.20	0.17	1.9	27.8	5.7	83.2
100	4	4.20	0.17	1.7	23.9	5.0	71.8

Construction

This reference is manufactures with three polyester textile reinforcements.

Silicone Properties

The inner silicone rubber compound is R/A VMQ type (Vinyl-Methyl Quality). The typical properties of this silicone are listed below:

Property	Method	Unit	Value
Hardness	ISO 868:2003	Shore A	56±5
Tensile strength	ISO 37:2011	MPa	>7
Elongation at break	ISO 37:2011	%	>300
Tear Strength (Method B)	ISO 34-1:2010	kN/m	>19

The external silicone rubber compound is VMQ (Vinyl-Methyl Quality). The typical properties of this silicone are listed below:

Property	Method	Unit	Value
Hardness	ISO 868:2003	Shore A	70±3
Tensile strength	ISO 37:2001	MPa	>7
Elongation at break	ISO 37:2001	%	>300
Tear Strength (Method B)	ISO 34-1:2010	kN/m	>19

Fabric Properties

The typical properties of the fabric are:

Property	Method	Unit	Value
Weight		g/m ²	145±5%
Thickness		mm	0.50±0.10
Breaking Elongation Warp Weft	ASTM D-5035-95	%	60 60
Breaking Strength Warp Weft	ASTM D-5035-95	Kgf/cm ²	>100 >100

VENA® VITOSIL

Oil and Hydrocarbon resistant silicone hose



> **MATERIAL:**
Silicone VMQ (Vinyl Methyl Quality) and FKM.



> **TEMPERATURE RANGE:**

Polyester reinforcement:
-55°C / +180°C
(peaks up to 200°C)
-67°F / 356°F
(peaks up to 392°F)
Aramid reinforcement:
-55°C / +200°C
(peaks up to 220°C)
-67°F / 392°F
(peaks up to 428°F)

> **APPLICATIONS:**

It is specially recommended for the transport of liquids or semi-liquids chemical products in the industrial sector, such as fuel, oils or any aggressive fluids when there are problems with silicone compatibility.

> **CERTIFICATIONS:**

> Material used is in accordance with EU Directive 2015/863 for Restriction of the use of hazardous substances (RoHS 3).

> **CONSTRUCTION:**

Silicone hose with an inner layer of black FKM (fluoroelastomer) and three (Sil 200 construction) or four (Sil 240 construction) fabric reinforcements (polyester or aramid).

> **STANDARD LENGTH:**

From 1 to 4m (3 to 13ft). Can be cut to smaller lengths upon request.

> **OUTER APPEARANCE:**

Adaptable to the product where it is applied.



TECHNICAL TABLE ON PAGE: Polyester reinforcement, Pg. 22 (Same as Vena® Sil 200/240)
Aramid reinforcement, Pg. 33

VENA® SIL 200 R/A

Oil-resistant silicone hose



> **MATERIAL:**
Silicone VMQ (Vinyl Methyl Quality) in the outer layer and Silicone R/A (Oil-Resistant) in the inner layer.

> **CONSTRUCTION:**
3 plies of polyester fabric

> **STANDARD WALL THICKNESS:**
4,3mm (+1/-0,5mm) / 0,17"
(+0,04/-0,02")

> **STANDARD LENGTH:**
From 1 to 4m (3 to 13ft). Can be cut to smaller lengths upon request.

> **OUTER APPEARANCE:**
Smooth and blue.

> **APPLICATIONS:**

Suitable for use in straight lengths with no bending requirements. Suitable for engine oils and other mineral oils. It is good for conveying oil particles.



TEMPERATURE RANGE:
-55°C / +150°C
(-67°F / +302°F)



TECHNICAL TABLE ON PAGE: 22 (same as Vena Sil 200/240)

VENA® SIL 200/240

INNER DIAMETER*		WORKING PRESSURE**				BURSTING PRESSURE			
		ISO 1402/2009				ISO 1402/2009			
mm	inch	bar (SIL200)	psi (SIL200)	bar (SIL240)	psi (SIL240)	bar (SIL200)	psi (SIL200)	bar (SIL240)	psi (SIL240)
6	1/4	16,1	234	21,2	309	48,5	703	63,5	928
13	1/2	9,7	141	12	174	29,1	422	36	522
19	3/4	7,2	104	9,3	135	21,8	316	28	406
25	1	5,9	86	7,6	110	17,7	257	23	334
32	1 1/4	4,9	71	6,3	91	14,7	213	19	276
38	1 1/2	4,3	62	5,6	81	12,9	187	17	247
45	1 3/4	3,7	54	5	73	11,3	164	15	218
51	2	3,4	49	4,6	67	10,3	149	14	203
57	2 1/4	3,1	45	4,3	62	9,4	136	13	189
63	2 1/2	2,9	42	4	58	8,8	128	12	174
70	2 3/4	2,7	39	3,6	52	8,1	117	11	160
76	3	2,5	36	3,3	48	7,5	109	10	145
80	3 1/8	2,3	33	3,3	48	6,9	100	10	145
90	3 1/2	1,9	28	3	44	5,7	83	9	131
100	4	1,6	23	2,6	38	5	73	8	116

* Other diameters can also be manufactured. Please consult.

** Pressure data is noted at ambient temperature. Pressure values should be reduced by 20% for each increase of 100°C (212°F).

REDUCER ELBOW 90°

DIAMETER*		DIAMETER*	
mm	inch	mm	inch
25/19	1 > 3/4	60/50	2 3/8 > 2
32/25	1 1/4 > 1	63/51	2 1/2 > 2
38/25	1 1/2 > 1	70/50	2 3/4 > 2
38/32	1 1/2 > 1 1/4	70/60	2 3/4 > 2 3/8
38/35	1 1/2 > 1 3/8	76/51	3 > 2
51/45	2 > 1 3/4	76/63	3 > 2 1/2

* Other diameters and leg lengths are available.

TECHNIC SPECIFICATIONS

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mm	inch	Bar	Psi	Bar	Psi
6	1/4	16,1	234	48,5	703
13	1/2	9,7	141	29,1	422
19	3/4	7,2	104	21,8	316
25	1	5,9	86	17,7	257
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38	1 1/2	4,3	62	12,9	187
45	1 3/4	3,7	54	11,3	164
51	2	3,4	49	10,3	149
57	2 1/4	3,1	45	9,4	136
63	2 1/2	2,9	42	8,8	128
70	2 3/4	2,7	39	8,1	117
76	3	2,5	36	7,5	109
80	3 1/8	2,3	33	6,9	100
90	3 1/2	1,9	28	5,7	83
100	4	1,6	23	5,0	73