# **Technical Datasheet**



Vena® SIL 200 R/A

Ref: DO 03.08 FT 89. Rev. 01 Date: 05/12/2013



## **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,
- 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.

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## **Technical Specifications**

Inner Diameter		Wall thickness		<b>Working Pressure</b> ISO 1402/2009		Bursting Pressure ISO 1402/2009	
mm	inch	+ 1/ -0.5 mm	+0.04/ -0.02 inch	Bar at 20°C	Psi at 68°F	Bar at 20°C	Psi at 68°F
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

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### **Fabric Properties**

The typical properties of the fabric are:

Property	Method	Unit	Value
Weight		g/m²	145±5%
Thickness		mm	0.50±0.10
Breaking Elongation			
Warp	ASTM D-5035-95	%	60
Weft			60
Breaking Strength			
Warp	ASTM D-5035-95	Kgf/cm <sup>2</sup>	>100
Weft			>100