Technical Datasheet

Vena® TECHNOSIL SAE J20R3 Class A

Ref: DO 03.10 FT 45. Rev. 09
Date: 29/05/2017

Applications

It is especially recommended for use in water and ethylene glycol-based engine coolant system applications.
For the automotive industry, the most common standard for coolant system hoses is SAE J20, which classifies them according to type of service. This reference, SAE 20R3, are for heater service.
This type of hose is used in connecting heater systems and other components in the coolant circulating systems of ground vehicles (for example in heavy duty truck and bus engines).

Limitations

Respect the work pressure established values.

Gas oil and oil stains do not damage the tubes, but they should not be used to transport fuel or oil, nor be submerged in these liquids.

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

Regulations

- Meets or exceeds operating and dimensional requirements of SAE J20 R3 Class A.
- Silicone rubber used is in accordance with EU Directive 2002/95/ECC for Restriction of the use of hazardous substances (RoHS).

Properties

- Smooth inner and outer appearance, and blue color.
- Excellent resistance to thermal aging and oxidizing agents (oxygen, ozone, UV).
- Operational temperature range from -60°C (-75 F) to +180°C (356 F).
- The standard manufacturing length is 76 meters long (249.34 ft.), although it is available in shorter lengths if necessary.

Technical Specifications

Physical tests	Method	SAE Designation	Value
Cold Flexibility (5hrs/ -40°C)	SAE J20 (5.1.2)	Not fracture, not show any cracks or breaks	Pass
Ozone test (50ppcm/100hrs/40°C)	ASTM D-1149	Not show any cracks	Pass
Kink test (%)	SAE J20 (5.1.4)	Collapse allowed 25%	<9

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Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009		Vacuum Pressure	
mm	*inch*	*±0.5mm*	*±0.02inch*	*Bar at 20ºC*	*Psi at 68ºF*	*Bar at 20ºC*	*Psi at 68ºF*	*Bar at 20ºC*	*Psi at 68ºF*
6.3	1/4	3.45	0.14	9.60	139.24	28.80	417.71	0.95	13.78
7.9	1/3	3.55	0.14	8.80	127.63	26.50	384.35	0.95	13.78
9.5	3/8	3.55	0.14	7.70	111.68	23.00	333.59	0.95	13.78
12.7	1/2	3.80	0.15	6.80	98.63	20.30	294.43	0.90	13.05
15.8	5/8	4.35	0.17	5.90	85.57	17.80	258.17	0.70	10.15
19.0	3/4	4.45	0.18	5.10	73.97	15.20	220.46	0.70	10.15
22.0	7/8	4.65	0.18	5.00	72.52	15.00	217.56	0.70	10.15
25.4	1	4.55	0.18	4.90	71.07	14.80	214.66	0.55	7.98
28.0	1 1/8	5.00	0.20	4.40	63.82	13.20	191.45	0.20	2.90
32.0	1 1/4	5.50	0.22	3.90	56.56	11.80	171.14	0.16	2.32

Construction

This reference is manufactured by extrusion with polyester yarn braiding inside the tube.