

Viton® (FPM, FKM)

Soft Tubing for Extreme Conditions



softrobustresists temperaturelow gaspermeability

Resists High Temperature

Working Temperature from -35° to +200°C allows Viton®-Tubing to operate in applications, which are not possible for other soft tubing. Flame rugged and +260°C for short term.

Excellent Chemical Resistance

Due to its very good Resistance against hydrocarbon, (mineral-) oils, chemicals, octane, fuel, diesel-fuel, heating-oil, ethanol and alcohol (expect methanol), phenol, glycol, soap solutions and suds, detergents, ionic and nonionic tenside, perchlorethylene, sodium hypochlorite, Viton®-Tubing is used in many extreme applications, beyond engines and automobiles. Aging- and ozone resistant, it often is the only solution in case of extreme environment.

Very low Gaspermeability

At Aerospace and anywhere, where the contamination of highly sensitive instruments is critical, Viton®-Tubing's very low gaspermeable makes your first choice.



Features and Benefits

- -35°C to +200°C, short-term +260°C
- · flame rugged
- extreme chemical resistance
- low gaspermeability
- Weather-, Aging- and ozone resistant

Typical Applications

- Engine- and Vehicle manufacturing
- Aerospace
- chemical industry
- plant engineering
- process monitoring instruments
- soil sampling
- peristaltic pumps

*Viton® is a registered Trademark of **DuPont Performance elastomers**

OPTUBUS GmbH – www.optubus.de – info@optubus.de

OPTUBUS believes that the information in this technical data sheet is an accurate description of the typical uses of the product. OPTUBUS, however, disclaims any liability for incidental or consequent damages, which may result from the use of the product that are beyond its control. Therefore it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficiency and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.



Viton®(FPM, FKM)

Weicher Schlauch für extreme Bedingungen

Typical physical properties of Optivit FPM Tubing

Property	Optivit FPM ST - Value of Rating	Optivit FPM Peri - Value of Rating	Optivit FPM Resi - Value of Rating	Optivit FPM Braided Value of Rating
Durometer Hardness	75° Shore A	60° Shore A	70° Shore A	70° Shore A
Color	schwarz	schwarz	schwarz	innen schwarz/ außen weiß
Specific Gravity	1,82	1,95	2,17	1,85
Max. recommended Operating Temp.	+200°C	+200°C	+260°C	+200°C
Brittleness by impact Temperature	-15°C	-35°C	-8°C	-15°C
Tensile Strenght	10 N/mm ²	14,2 MPa	>19,5 MPa	>8,5 MPa
Ultimate Elongation	200%	300%	>250%	>200%
Tear Resistance	-	-	4,5 N/mm	-
Working Pressure	-	-	-	10 bar

Optivit FPM ST Standard Sizes

For technical Purpose – in Laboratory, Chemistry, Mechanical Engineering, Oil- and Fuel Lines

Part-no.	ID	OD	Wall	Part-no.	ID	OD	Wall
VT1,0ST3,0	1,0 mm	3,0 mm	1,0 mm	VT7,0ST10,0	7,0 mm	10,0 mm	1,5 mm
VT2,0ST4,0	2,0 mm	4,0 mm	1,0 mm	VT7,0ST11,0	7,0 mm	11,0 mm	2,0 mm
VT3,0ST5,0	3,0 mm	5,0 mm	1,0 mm	VT8,0ST11,0	8,0 mm	11,0 mm	1,5mm
VT3,0ST6,0	3,0 mm	6,0 mm	1,5 mm	VT8,0ST12,0	8,0 mm	12,0 mm	2,0 mm
VT4,0ST6,0	4,0 mm	6,0 mm	1,0 mm	VT9,0ST13,0	9,0 mm	13,0 mm	2,0 mm
VT4,0ST7,0	4,0 mm	7,0 mm	1,5 mm	VT10,0ST14,0	10,0 mm	14,0 mm	2,0 mm
VT4,0ST8,0	4,0 mm	8,0 mm	2,0 mm	VT12,0ST16,0	12,0 mm	16,0 mm	2,0 mm
VT5,0ST7,0	5,0 mm	7,0 mm	1,0 mm	VT12,0ST17,0	12,0 mm	17,0 mm	2,5 mm
VT5,0ST8,0	5,0 mm	8,0 mm	1,5 mm	VT15,0ST21,0	15,0 mm	21,0 mm	3,0 mm
VT5,0ST9,0	5,0 mm	9,0 mm	2,0 mm	VT18,0ST24,0	18,0 mm	24,0 mm	3,0 mm
VT6,0ST9,0	6,0 mm	9,0 mm	1,5 mm	VT20,0ST27,0	20,0 mm	27,0 mm	3,5 mm
VT6,0ST10,0	6,0 mm	10,0 mm	2,0 mm				

OPTUBUS GmbH - www.optubus.de - info@optubus.de



Viton®(FPM, FKM)

Weicher Schlauch für extreme Bedingungen

Optivit FPM Peri - Peristaltic Standard Sizes

For Peristaltic Pumps

Part-No.	ID	OD	Wall
VT0,79PE2,8	0,79 mm (1/32")	2,8 mm	1,0 mm
VT0,79PE3,97	0,79 mm (1/32")	3,97 mm (5/32")	1,59 mm (1/16")
VT1,59PE3,18	1,59 mm (1/16")	3,18 mm (1/8")	0,79 mm (1/32")
VT1,59PE4,76	1,59 mm (1/16")	4,76 mm (3/16")	1,59 mm (1/16")
VT2,0PE4,0	2,0 mm	4,0 mm	1,0 mm
VT3,0PE5,0	3,0 mm	5,0 mm	1,0 mm
VT3,18PE6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")
VT3,97PE7,14	3,97 mm (5/32")	7,14 mm (9/32")	1,59 mm (1/16")
VT4,0PE6,0	4,0 mm	6,0 mm	1,0 mm
VT4,0PE8,0	4,0 mm	8,0 mm	2,0 mm
VT4,76PE7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")
VT4,76PE9,53	4,76 mm (3/16")	9,53 mm (3/8")	2,38 mm (3/32")
VT5,0PE8,0	5,0 mm	8,0 mm	1,5 mm
VT6,0PE9,0	6,0 mm	9,0 mm	1,5 mm

Part-No.	ID	OD	Wall
VT6,0PE10,0	6,0 mm	10,0 mm	2,0 mm
VT6,35PE9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")
VT6,35PE11,11	6,35 mm (1/4")	11,11 mm (7/16")	2,38 mm (3/32")
VT6,35PE12,7	6,35 mm (1/4")	12,7 mm (1/2")	3,18 mm (1/8")
VT7,94PE11,11	7,94 mm (5/16")	11,11 mm (7/16")	1,59 mm (1/16")
VT7,94PE12,7	7,94 mm (5/16")	12,7 mm (1/2")	2,38 mm (3/32")
VT8,0PE12,0	8,0 mm	12,0 mm	2,0 mm
VT9,53PE14,29	9,53 mm (3/8")	14,29 mm (9/16")	2,38 mm (3/32")
VT9,53PE15,88	9,53 mm (3/8")	15,88 mm (5/8")	3,18 mm (1/8")
VT10,0PE14,0	10,0 mm	14,0 mm	2,0 mm
VT12,0PE16,0	12,0 mm	16,0 mm	2,0 mm
VT12,7PE17,46	12,7 mm (1/2")	17,46 mm (11/16")	2,38 mm (3/32")
VT12,7PE19,05	12,7 mm (1/2")	19,05 mm (3/4")	19,05 mm (3/4")

Optivit FPM Peri – Peristaltic Sizes

For Peristaltic Pumps with 2 or 3 Stops

				Part-No.	Part-No.	without
color-code	ID	OD	Wall	2-Stops	3-Stop.	Stops
orange-yellow	0,51 mm	2,31 mm	0,90 mm	VT0,51OR2GL	VT0,51OR3GL	VT0,51PE2,31
orange-white	0,64 mm	2,44 mm	0,90 mm	VT0,64OR2WS	VT0,64OR3WS	VT0,64PE2,44
black-black	0,76 mm	2,46 mm	0,85 mm	VT0,76SW2SW	VT0,76SW3WS	VT0,76PE2,46
orange-orange	0,89 mm	2,59 mm	0,85 mm	VT0,89OR2OR	VT0,89OR3OR	VT0,89PE2,59
white-white	1,02 mm	2,72 mm	0,85 mm	VT1,02WS2WS	VT1,02WS3WS	VT1,02PE2,72
red-red	1,14 mm	2,84 mm	0,85 mm	VT1,14RT2RT	VT1,14RT3RT	VT1,14PE2,84
grey-grey	1,30 mm	3,00 mm	0,85 mm	VT1,30GR2GR	VT1,30GR3GR	VT1,30PE3,00
yellow-yellow	1,42 mm	3,12 mm	0,85 mm	VT1,42GL2GL	VT1,42GL3GL	VT1,42PE3,12
yellow-blue	1,52 mm	3,22 mm	0,85 mm	VT1,52GL2BL	VT1,52GL3BL	VT1,52PE3,22
blue-blue	1,65 mm	3,35 mm	0,85 mm	VT1,65BL2BL	VT1,65BL3BL	VT1,65PE3,35
blue-green	1,75 mm	3,43 mm	0,85 mm	VT1,75BL2GN	VT1,75BL3GN	VT1,75PE3,43
green-green	1,85 mm	3,55 mm	0,85 mm	VT1,85GN2GN	VT1,85GN3GN	VT1,85PE3,55
purple-purple	2,06 mm	3,76 mm	0,85 mm	VT2,06VO2VO	VT2,06VO3VO	VT2,06PE3,76
purple-black	2,29 mm	3,99 mm	0,85 mm	VT2,29VO2SW	VT2,29VO3SW	VT2,29PE3,99
purple-orange	2,54 mm	4,24 mm	0,85 mm	VT2,54VO2OR	VT2,54VO3OR	VT2,54PE4,24
purple-white	2,79 mm	4,49 mm	0,85 mm	VT2,79VO2WS	VT2,79VO3WS	VT2,79PE4,49
black-white	3,18 mm	4,85 mm	0,85 mm	VT3,18SW2WS	VT3,18SW3WS	VT3,18PE4,85

OPTUBUS GmbH - www.optubus.de - info@optubus.de

OPTUBUS believes that the information in this technical data sheet is an accurate description of the typical uses of the product. OPTUBUS, however, disclaims any liability for incidental or consequent damages, which may result from the use of the product that are beyond its control. Therefore it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficiency and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.



Viton® (FPM, FKM)

Weicher Schlauch für extreme Bedingungen

Optivit FPM Braided Standard Sizes

Fiberglas Braided for working pressure up to 10 bar.

Part-No.	ID	OD*	Wall*
VT6,0IB11,0	6,0 mm	~11,0 mm	~2,5 mm
VT8,0IB13,0	8,0 mm	~13,0 mm	~2,5 mm
VT10,0IB15,0	10,0 mm	~15,0 mm	~2,5 mm
VT12,0IB17,0	12,0 mm	~17,0 mm	~2,5 mm
VT15,0IB22,0	15,0 mm	~22,0 mm	~3,5 mm
VT18,0IB25,0	18,0 mm	~25,0 mm	~3,5 mm
VT20,0IB27,0	20,0 mm	~27,0 mm	~3,5 mm

^{*}the values for OD and Wall are approximately measured on the glasfibre braid and may differ

${\bf OPTUBUS\ GmbH-www.optubus.de-info@optubus.de}$