

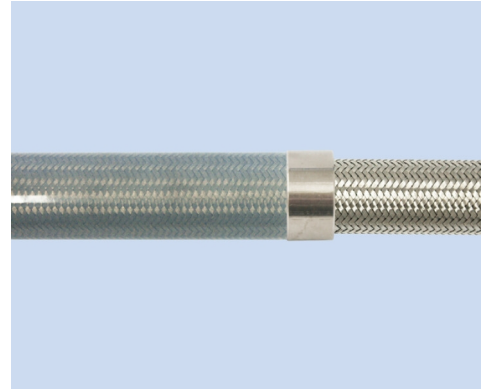
# Silicone rubber covered (SI) grade hoses



*Bioflex Ultra*

## Features and benefits

- Natural or anti-static patented PTFE liner
- Very flexible, yet kink resistant
- Smooth bore for uninterrupted fluid flow and ease of cleaning
- High temperature and pressure capability
- Chemical resistant
- PTFE-lined and non-lined end fittings with laser etched ferrule for ultimate traceability
- Range of braid, cover and external protection options available



## Silicone rubber covered (SI) grade hoses performance

| Nominal hose bore size |     | Actual bore size |      | Bioflex Ultra grade (braid and cover) | Helical wire | **Maximum working pressure of hose |       | Burst pressure |       | Minimum bend radius |     |
|------------------------|-----|------------------|------|---------------------------------------|--------------|------------------------------------|-------|----------------|-------|---------------------|-----|
| in                     | mm  | in               | mm   |                                       |              | bar                                | psi   | bar            | psi   | in                  | mm  |
| ¾                      | 9.5 | 0.382            | 9.7  | TO                                    | -            | 5                                  | 72    | 20             | 290   | 1½                  | 35  |
|                        |     |                  |      | SS                                    | -            | 80                                 | 1,160 | 500            | 7,200 | ¾                   | 19  |
|                        |     |                  |      | RC/BK/SI                              | -            | 80                                 | 1,160 | 500            | 7,200 | ¾                   | 19  |
|                        |     |                  |      |                                       |              |                                    |       |                |       |                     |     |
| ½                      | 15  | 0.516            | 13.1 | TO                                    | ✓            | 5                                  | 72    | 20             | 290   | 2½                  | 60  |
|                        |     |                  |      | SS                                    | ✓            | 70                                 | 1,015 | 400            | 5,800 | 1½                  | 38  |
|                        |     |                  |      | PB                                    | ✓            | 35                                 | 500   | 140            | 2,000 | 1½                  | 38  |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 70                                 | 1,015 | 400            | 5,800 | 1½                  | 38  |
| ¾                      | 16  | 0.638            | 16.2 | TO                                    | ✓            | 5                                  | 72    | 20             | 2,900 | 2½                  | 64  |
|                        |     |                  |      | SS                                    | ✓            | 65                                 | 940   | 380            | 5,500 | 1½                  | 45  |
|                        |     |                  |      | PB                                    | ✓            | 33                                 | 480   | 130            | 1,900 | 1½                  | 45  |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 65                                 | 940   | 380            | 5,500 | 1½                  | 45  |
| ¾                      | 20  | 0.760            | 19.3 | TO                                    | ✓            | 5                                  | 72    | 20             | 290   | 3                   | 75  |
|                        |     |                  |      | SS                                    | ✓            | 60                                 | 870   | 300            | 4,350 | 2                   | 50  |
|                        |     |                  |      | PB                                    | ✓            | 30                                 | 440   | 120            | 1,750 | 2                   | 50  |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 60                                 | 870   | 300            | 4,350 | 2                   | 50  |
| * ¾                    | 22  | 0.870            | 22.1 | TO                                    | ✓            | 4                                  | 60    | 16             | 230   | 3½                  | 90  |
|                        |     |                  |      | SS                                    | ✓            | 55                                 | 800   | 220            | 3,200 | 2½                  | 55  |
|                        |     |                  |      | PB                                    | ✓            | 27.5                               | 400   | 110            | 1,600 | 2½                  | 55  |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 55                                 | 800   | 220            | 3,200 | 2½                  | 55  |
| 1                      | 25  | 1.012            | 25.7 | TO                                    | ✓            | 4                                  | 60    | 16             | 230   | 4½                  | 110 |
|                        |     |                  |      | SS                                    | ✓            | 50                                 | 720   | 200            | 2,900 | 2½                  | 70  |
|                        |     |                  |      | PB                                    | ✓            | 25                                 | 360   | 100            | 1,450 | 2½                  | 70  |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 50                                 | 720   | 200            | 2,900 | 2½                  | 70  |
| 1¼                     | 32  | 1.268            | 32.2 | TO                                    | ✓            | 3                                  | 43    | 12             | 175   | 5½                  | 140 |
|                        |     |                  |      | SS                                    | ✓            | 45                                 | 650   | 180            | 2,600 | 4                   | 100 |
|                        |     |                  |      | PB                                    | ✓            | 23                                 | 330   | 90             | 1,300 | 4                   | 100 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 45                                 | 650   | 180            | 2,600 | 4                   | 100 |
| * 1¼                   | 35  | 1.370            | 34.8 | TO                                    | ✓            | 2                                  | 29    | 8              | 116   | 6½                  | 160 |
|                        |     |                  |      | SS                                    | ✓            | 40                                 | 580   | 160            | 2,320 | 4                   | 100 |
|                        |     |                  |      | PB                                    | ✓            | 20                                 | 290   | 80             | 1,160 | 4                   | 100 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 40                                 | 580   | 160            | 2,320 | 4                   | 100 |
| 1½                     | 40  | 1.516            | 38.5 | TO                                    | ✓            | 2                                  | 29    | 8              | 116   | 7                   | 180 |
|                        |     |                  |      | SS                                    | ✓            | 40                                 | 580   | 160            | 2,320 | 5½                  | 140 |
|                        |     |                  |      | PB                                    | ✓            | 20                                 | 290   | 80             | 1,160 | 5½                  | 140 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 40                                 | 580   | 160            | 2,320 | 5½                  | 140 |
| * 1½                   | 48  | 1.866            | 47.4 | TO                                    | ✓            | 2                                  | 29    | 8              | 116   | 11                  | 280 |
|                        |     |                  |      | SS                                    | ✓            | 35                                 | 500   | 140            | 2,000 | 6½                  | 170 |
|                        |     |                  |      | PB                                    | ✓            | 18                                 | 250   | 72             | 1,040 | 6½                  | 170 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 35                                 | 500   | 140            | 2,000 | 6½                  | 170 |
| 2                      | 50  | 2.012            | 51.1 | TO                                    | ✓            | 2                                  | 29    | 8              | 116   | 12                  | 300 |
|                        |     |                  |      | SS                                    | ✓            | 30                                 | 430   | 120            | 1,750 | 8                   | 200 |
|                        |     |                  |      | PB                                    | ✓            | 15                                 | 215   | 60             | 870   | 8                   | 200 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 30                                 | 430   | 120            | 1,750 | 8                   | 200 |
| 2½                     | 65  | 2.508            | 63.7 | SS                                    | ✓            | 20                                 | 290   | 80             | 1,160 | 11½                 | 300 |
|                        |     |                  |      | PB                                    | ✓            | 12                                 | 174   | 48             | 696   | 11½                 | 300 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 20                                 | 290   | 80             | 1,160 | 11½                 | 300 |
| 3                      | 80  | 3.024            | 76.8 | SS                                    | ✓            | 15                                 | 218   | 60             | 870   | 13½                 | 350 |
|                        |     |                  |      | PB                                    | ✓            | 10                                 | 145   | 40             | 580   | 13½                 | 350 |
|                        |     |                  |      | RC/BK/SI                              | ✓            | 15                                 | 218   | 60             | 870   | 13½                 | 350 |

TO = Tube only, SS = Stainless steel braid, PB = Polypropylene braid, SS,RC/FP = Fireproof rubber cover, RC = Blue EPDM rubber cover, BK = Black EPDM rubber cover, SI = Silicone rubber cover, KYB = Kynar braid

\*The ¾", 1¼" and 1½" hose sizes are only suitable for use with PTFE lined sanitary clamp (or triclover) end fittings and PTFE lined I-Line end fittings.

\*\* The maximum working pressure (MWP) of a hose assembly is limited to the lowest of the MWP's of either of the two end fittings, or of the hose itself as listed above. The MWP of the hose reduces as the operating temperature increases, consult Aflex Hose for guidance.

Note: 2½" & 3" tube only (TO grade) cannot be ordered as an assembly.

## Technical specifications

|                                  | Silicone rubber covered (SI) grade hoses  |
|----------------------------------|---|
| Nominal bore size                | 9.5 - 80 mm   |
| Nominal bore size                | 0.375 - 3 in  |
| Actual bore size                 | 9.7 - 76.8 mm   |
| Actual bore size                 | 0.382 - 3.024 in  |
| Max Length                       | 15 - 30 m   |
| Outside diameter                 | 15.5 - 92.8 mm  |
| Outside diameter                 | 0.61 - 3.654 in   |
| Max. operating pressure          | 80 bar  |
| Max. operating pressure          | 1160 psi  |
| Burst pressure                   | 60 - 500 bar  |
| Burst pressure                   | 870 - 7,200 psi   |
| Certification                    | (EU) 10/2011, 3.1 Traceability, 3-A 62-02, ATEX, EN16643:2016, FDA (materials), ISO 14001:2015, ISO 9001:2015, OHSAS 18001:2015, USP Class VI   |
| Operating temperature range      | -73 °C to 240 °C  |
| Operating temperature range      | -100 °F to 400 °F   |
| Bend radius                      | 19 - 350 mm   |
| Bend radius                      | 0.75 - 13.75 in   |
| Braid                            | Stainless steel   |
| Cover                            | Silicone rubber   |
| Hose external protection options | Protection coil, Safeguard, Scuff rings   |
| End fitting                      | 3-A sanitary fittings, 90° elbow fittings, BSP and NPT threaded fittings, CAM and groove fittings, DIN 11851 fittings, JIC fittings, PTFE dip pipe fittings, Sanitary triclamp fittings, SMS and RJT fittings, Swivel flange fittings |
| Labelling options                | Colour coding, Standard, Streamline tagging   |
| Vacuum resistance                | Usable at vacuum -0.9 bar up to 200 °C (392 °F)   |

## Materials of construction

|              | Silicone rubber covered (SI) grade hoses |
|--------------|--|
| Helical wire | Stainless steel 316                      |
| Liner tube   | PTFE                                     |

Disclaimer: The information contained in this document is believed to be correct but Aflex Hose Limited accepts no liability for any errors it contains and reserves the right to alter specifications without notice. It is the user's responsibility to ensure product suitability for use within their application. Bioflex, Corroflon, Corroline, Hyperline FX, Pharmaline are registered trademarks of Aflex Hose Limited. A member of Watson-Marlow Fluid Technology Solutions, A Spirax-Sarco Engineering plc company.

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