

PRO-FUEL™ LINED SILICONE HOSE WITH POLYESTER REINFORCEMENT.

**This Data Sheet Covers
the Following Hose Types:** PE45, PE60, PE90, PE120
PE135, PRE45, PRE90, PSHL,
PXFL, PSR, PSCH & PSHH.

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General Use

This type of hose is generally used in applications where the medium flowing through the hose is likely to degrade the standard silicone or even Fluorosilicone, pump fuels such as Petrol/Gasoline and similar fuels including E85 Ethanol based pump fuel.

Working Temperature Range: -40°C to +180°C.

Construction

A lining of Green Pro-Fuel™, covered with plies of Silicone, reinforced with Polyester Fabric. The number of plies will vary depending on the working pressure, bore size, and required wall thickness. See Page 2 for details.

Materials Specifications

Pro-Fuel™ Rubber Compound

| | |
|---------------------------------------|-------------|
| Colour | Green |
| Hardness (IHRD) | 62 ± 3 |
| Specific Gravity (g/cm ³) | 2.05 ± 0.02 |
| Tensile Strength (Mpa) | 14.5 |
| Elongation at Break (%) | 250 |

Silicone Rubber Compound

| | |
|---------------------------------------|-------------|
| Colour | Various |
| Hardness (IHRD) | 65 ± 5 |
| Specific Gravity (g/cm ³) | 1.18 ± 0.03 |
| Tensile Strength (Mpa) | 8.3 |
| Elongation at Break (%) | 308 |
| Tear Strength (KN/m) | 16 |

The above physical properties refer to a test sheet press cured for 5mins at 115°C, and post cured for 4 hrs @ 200°C. Tested to the relevant BS903 standard.

Fluid Resistance Figures (Pro-Fuel Lining)

| Immersion Medium | Temperature Conditions | Resistance |
|------------------|------------------------|------------|
| ASTM No1 Oil | 150°C | Excellent |
| ASTM No3 Oil | 150°C | Excellent |
| ASTM Fuel B | 40°C | Excellent |

The values shown above have been arrived at through the use of immersion tests. Service conditions, however, are usually less severe than immersion tests, as the rubber may only be splashed or partly exposed to the particular medium. Figures for other media are available on request.

The Pro-Fuel™ lining has very low permeability and is inherently self extinguishing in the case of fire.

Knitted Polyester Fabric

| | |
|--|-----------------|
| Description | Fine Mesh |
| Yarn Type | 100% Polyester |
| Finish | Scour & Set |
| Bursting Strength (Fabric) (7" Internal Dia. Ring) | 33psi |
| Extensibility at Burst | 60% |
| Thickness | 0.022" (0.56mm) |

Spring Steel Wire Helix (where applicable)

Constructed from galvanised spring steel wire (to BS5216 HS3) at a spacing of 2-3 tpi, and buried between the plies.



WORKING PRESSURE GUIDELINES FOR PRO-FUEL™ LINED SILICONE HOSE WITH POLYESTER REINFORCEMENT.

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| I.D. | | Number Of Plies | Typical Wall Thickness (mm) | Burst pressure | | Recommended Max. Working Pressure @ 4:1 safety Factor | |
|--------|----------|--------------------|--------------------------------------|----------------|-------|---|-------|
| (mm) | (") | | | (Psi) | (Bar) | (Psi) | (Bar) |
| 6.5mm | 1/4" | 3 | 4.2mm | 1111 | 76.6 | 278 | 19.2 |
| 8mm | 5/16" | 3 | 4.2mm | 931 | 64.2 | 233 | 16.1 |
| 9.5mm | 3/8" | 3 | 4.2mm | 803 | 55.4 | 201 | 13.9 |
| 11mm | 7/16" | 3 | 4.2mm | 709 | 48.9 | 177 | 12.2 |
| 12.7mm | 1/2" | 3 | 4.2mm | 615 | 42.4 | 154 | 10.6 |
| 16mm | 5/8" | 3 | 4.2mm | 515 | 35.5 | 129 | 8.9 |
| 18mm | | 3 | 4.2mm | 464 | 32.0 | 116 | 8.0 |
| 19mm | 3/4" | 3 | 4.2mm | 444 | 30.6 | 111 | 7.7 |
| 20mm | | 3 | 4.2mm | 425 | 29.3 | 106 | 7.3 |
| 22mm | 7/8" | 3 | 4.2mm | 392 | 27.0 | 98 | 6.8 |
| 25mm | 1" | 3 | 4.2mm | 351 | 24.2 | 88 | 6.1 |
| 28mm | 1 1/8" | 3 | 4.2mm | 319 | 22.0 | 80 | 5.5 |
| 30mm | 1 3/16" | 3 | 4.2mm | 300 | 20.7 | 75 | 5.2 |
| 32mm | 1 1/4" | 3 | 4.2mm | 284 | 19.6 | 71 | 4.9 |
| 35mm | 1 3/8" | 3 | 4.2mm | 262 | 18.1 | 66 | 4.5 |
| 38mm | 1 1/2" | 3 | 4.2mm | 245 | 16.9 | 61 | 4.2 |
| 41mm | 1 5/8" | 3 | 4.2mm | 229 | 15.8 | 57 | 4.0 |
| 45mm | 1 3/4" | 3 | 4.2mm | 212 | 14.6 | 53 | 3.7 |
| 48mm | 1 7/8" | 3 | 4.2mm | 200 | 13.8 | 50 | 3.5 |
| 51mm | 2" | 4 | 5.2mm | 242 | 16.7 | 61 | 4.2 |
| 54mm | 2 1/8" | 4 | 5.2mm | 232 | 16.0 | 58 | 4.0 |
| 57mm | 2 1/4" | 4 | 5.2mm | 222 | 15.3 | 56 | 3.8 |
| 60mm | 2 3/8" | 4 | 5.2mm | 213 | 14.7 | 53 | 3.7 |
| 63mm | 2 1/2" | 4 | 5.2mm | 204 | 14.1 | 51 | 3.5 |
| 65mm | 2 9/16" | 4 | 5.2mm | 200 | 13.8 | 50 | 3.5 |
| 68mm | 2 11/16" | 4 | 5.2mm | 193 | 13.3 | 48 | 3.3 |
| 70mm | 2 3/4" | 4 | 5.2mm | 189 | 13.0 | 47 | 3.3 |
| 76mm | 3" | 4 | 5.2mm | 177 | 12.2 | 44 | 3.1 |
| 80mm | 3 1/8" | 4 | 5.2mm | 170 | 11.7 | 43 | 2.9 |
| 83mm | 3 1/4" | 4 | 5.2mm | 165 | 11.4 | 41 | 2.9 |
| 89mm | 3 1/2" | 5 | 6.0mm | 212 | 14.6 | 53 | 3.7 |
| 102mm | 4" | 5 | 6.0mm | 191 | 13.2 | 48 | 3.3 |

This data applies to all standard **Pro-Fuel** hoses in the Samco Sport range.

