



**Silflex Limited**

Coed Cae Lane , Pontyclun , Mid Glam , CF72 9HJ, UK

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www.silflex.com e-mail: office@silflex.com

## TECHNICAL DATA SHEET – SM02

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**DESCRIPTION** Silicone Rubber Compound, vulcanising on heating. Specifically designed for hoses to meet SAEJ20.

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**SPECIAL PROPERTIES** Stable over a range of temperatures -55°C to +225°C  
Good compromise of mechanical properties  
No post cure  
Excellent calenderability  
Good compression set  
Moderate oil resistance

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**CHARACTERISTICS**

|                                   |            |
|-----------------------------------|------------|
| Type (AFNOR T 40002)              | VMQ        |
| Specific gravity at 25°C, approx. | 1.18 ±0.05 |
| Colour                            | Blue       |

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### **PROPERTIES AFTER PROCESSING**

1. **Mechanical properties**
  - 1.1 **After curing 8 minutes at 115°C**

|   |         |
|---|---------|
| Shore A hardness, approx.                   | 65 ±5   |
| Tensile strength, MPa,                      | 8.6 Min |
| Elongation at break, %,                     | 308 Min |
| Tear strength, kN/m,                        | 13 Min  |
| Compression set (22h/177°C/25%), %, approx. | 24      |
| Compression set (70h/125°C/25%), %, approx. | 13      |
  2. **Heat stability**
    - 2.1 **Properties after ageing 10 days at 200°C**

|                                 |     |
|---------------------------------|-----|
| Shore A hardness, approx.       | 66  |
| Tensile strength, MPa, approx.  | 7.3 |
| Elongation at break, %, approx. | 250 |
| Tear strength, kN/m, approx.    | 10  |
    - 2.2 **Properties after ageing 70 hours at 175°C**

|                                 |           |
|---------------------------------|-----------|
| Shore A hardness, approx.       | 65        |
| Tensile strength, MPa, approx.  | 8.1 (-6%) |
| Elongation at break, %, approx. | 285 (-7%) |

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Registered in England No. 2569811



Certificate N° FM33476

Currie & Warner Group





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**3. Fluid resistance**

3.1 Properties after immersion in coolant (Havoline XLC, new generation, at 50% in water) for 3 days at boiling point.

|                                |            |
|--------------------------------|------------|
| Shore A hardness, approx.      | 67 (0 pts) |
| Tensile strength, MPa, approx. | 7.2 (-9%)  |
| Elongation, %, approx.         | 279 (-6%)  |
| Volume change, %, approx.      | 0          |

3.2 Properties after immersion in coolant (Havoline XLC, new generation, at 50% in water) for 21 days at boiling point.

|                                |             |
|--------------------------------|-------------|
| Shore A hardness, approx.      | 64 (-3 pts) |
| Tensile strength, MPa, approx. | 6.2 (-22%)  |
| Elongation, %, approx.         | 246 (-17%)  |
| Volume change, %, approx.      | 0           |

3.3 Properties after immersion in coolant (Glaccol) for 70 hours at boiling point.

|                                |             |
|--------------------------------|-------------|
| Shore A hardness, approx.      | 64 (-1 pts) |
| Tensile strength, MPa, approx. | 6.9 (-19%)  |
| Elongation, %, approx.         | 300 (-3%)   |
| Volume change, %, approx.      | +2          |

3.4 Properties after immersion in coolant (Liquid D at 50% in water) for 70 hrs at boiling point.

|                                |             |
|--------------------------------|-------------|
| Shore A hardness, approx.      | 62 (-3 pts) |
| Tensile strength, MPa, approx. | 7.1 (-18%)  |
| Elongation, %, approx.         | 255 (-17%)  |
| Volume change, %, approx.      | +1          |

3.5 Properties after immersion for 70 hours at 150°C in IRM 903 oil.

|                                |              |
|--------------------------------|--------------|
| Shore A hardness, approx.      | 48 (-17 pts) |
| Tensile strength, MPa, approx. | 6.7 (-22%)   |
| Elongation, %, approx.         | 235 (-24%)   |
| Volume change, %, approx.      | +26          |

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**APPLICATIONS**

Manufacture of automotive hoses by calendering.

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**PACKAGING**

The elastomer is delivered in 25 kg cardboard boxes or 500 kg cardboard containers.

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**STORAGE AND SHELF LIFE**

The elastomer should be able to be stored in its original unopened packaging at a temperature below +35°C for up to 3 months from the date of manufacture.

Date of manufacture should be marked clearly on the packaging.



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