

## Tufel™ II 94706

### Description

Tufel II Silicone Rubber Compounds 94406, 94506, 94606, 94706 are 40-70 durometer low volatile fast-cure addition cured silicone elastomers for extrusion and calendering. They may be used by themselves or blended to intermediate durometers. Applications include extruded tubings, profiles and calendered sheets.

### Key Features and Typical Benefits

- LV Bases Minimize Porosity and Post Cure
- Totally Peroxide-Free Cure System
- Broad Processing Window
- High Output Rates
- High Tear Strength
- Tight Surface Cure
- Non-blooming
- Translucency

### Typical Physical Properties

TYPICAL CHARACTERISTICS OF UNCURED TUFEL II SILICONE RUBBER - 94006 SERIES

| PROPERTIES       | 94406       | 94506       | 94606       | 94706       |
|------------------|-------------|-------------|-------------|-------------|
| Specific Gravity | 1.11        | 1.15        | 1.19        | 1.22        |
| Appearance       | Translucent | Translucent | Translucent | Translucent |

|   |     |     |     |     |
|---|-----|-----|-----|-----|
| Polymer Classification<br>(ASTM D-1418) | VMQ | VMQ | VMQ | VMQ |
|---|-----|-----|-----|-----|

TYPICAL RHEOLOGICAL PROFILE - MONSANTO ODR WITH 3° ARC @ 150°C  
(300°F)

|                         |         |         |         |         |
|-------------------------|---------|---------|---------|---------|
| Minimum Viscosity       | 1-6     | 3-7     | 3-8     | 3-9     |
| T1, Minutes             | 0.1-0.4 | 0.1-0.4 | 0.1-0.3 | 0.1-0.4 |
| 7 Min. Torque (lb./in.) | 33-48   | 34-53   | 45-60   | 45-60   |

TYPICAL PHYSICAL PROPERTIES OF TUFEL II SILICONE RUBBER - 94006  
SERIES

| ASTM METHOD | PRESS CURE - 10 MINUTES @ 177°C (350°F)       | 94406 | 94506 | 94606 | 94706 |
|-------------|---|-------|-------|-------|-------|
| D-2240      | Hardness, Durometer A                         | 39    | 48    | 56    | 71    |
| D-412       | Tensile Strength, psi                         | 1300  | 1348  | 1230  | 1320  |
|             | MPa   | 9.0   | 9.2   | 8.5   | 9.1   |
| D-412       | Elongation, %                                 | 900   | 900   | 740   | 630   |
| D-624       | Tear Resistance, Die B, ppi                   | 225   | 250   | 240   | 320   |
|             | KN/M  | 39    | 44    | 42    | 56    |
| D-412       | Tensile Modulus @ 100% psi                    | 140   | 190   | 245   | 500   |
|             | MPa   | 1.0   | 1.3   | 1.7   | 3.4   |
|             | POST CURE 2 HOURS @ 177°C (350°F)             |       |       |       |       |
| D-2240      | Hardness, Durometer A                         | 43    | 53    | 61    | 73    |
| D-412       | Tensile Strength, psi                         | 1350  | 1400  | 1250  | 1350  |
|             | MPa   | 9.3   | 9.7   | 8.6   | 9.3   |
| D-412       | Elongation, %                                 | 800   | 850   | 680   | 600   |
| D-624       | Tear Resistance, Die B, ppi                   | 235   | 270   | 270   | 330   |
|             | KN/M  | 41    | 47    | 47    | 58    |
| D-412       | Tensile Modulus @ 100% psi                    | 170   | 225   | 300   | 530   |
|             | MPa   | 1.2   | 1.6   | 2.1   | 3.7   |
| D-395       | Compression Set, %<br>22 hrs. @ 150°C (300°F) | 20    | 20    | 20    | 20    |

## Regulatory Compliance

- A representative sample of an analogous product to Tufel II 94706 met the requirements of USP Class VI and ISO 10993 under Good Laboratory Practices (GLP).
- Listed as UL 94 HB (File No. E205753)
- The ingredients are listed in the BfR recommendation XV “Silicones” <sup>(1)</sup>
- Compositionally compliant with 21 CFR 177.2600 – Rubber articles intended for repeated use<sup>(2)</sup>

(1) Producer of the final article needs to test and confirm that the final product meets the extraction limits of BfR XV or corresponding EU legislation.

(2) It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600, under their specific manufacturing procedures

**Patent Status**

Standard copy to come

**Product Safety, Handling and Storage**

Standard copy to come

**Limitations**

Standard copy to come

**Contact Information**

Email

[commercial.services@momentive.com](mailto:commercial.services@momentive.com)

**Telephone**

| <b>Americas</b>   | <b>Latin America</b>                               | <b>EMEAI- Europe, Middle East, Africa &amp; India</b>  | <b>ASIA PACIFIC</b>   |
|---|--|--|---|
| +1 800 295 2392<br>Toll free*<br>+704 805 6946<br>Direct Number | <b>Brazil</b><br>+55 11 4534 9650<br>Direct Number | <b>Europe</b><br>+390510924300<br>Direct number  | <b>China</b><br>800 820 0202<br>Toll free<br>+86 21 3860 4892<br>Direct number          |
| *All American countries   | <b>Mexico</b><br>+52 55 2169 7670<br>Direct Number | <b>India, Middle East &amp; Africa</b><br>+ 91 44 71212207<br>Direct number*<br><b>*All Middle Eastern countries, Africa, India,</b> | <b>Japan</b><br>+81 3 5544 3111<br>Direct number<br><br><b>Korea</b><br>+82 2 6201 4600 |

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