

LIM™ 6010

Description

LIM6010 liquid silicone rubber is a two-component product formulated for use in liquid injection molding to produce elastomeric parts where low-durometer is a key requirement. LIM6010 elastomer is clear, but easily pigmentable with Momentive masterbatch colors. The combination of low-durometer and non-tackiness allows the product to be used in such consumer goods applications as corn pads and heel inserts, where 'soft touch' sensory characteristics are important. LIM6010 elastomer offers a convenient 1:1 mix ratio and releases easily from molds. Cure time is rapid, generally 10 to 40 seconds at 150°C (302°F) - 204°C (400°F), depending on part size, configuration, and molding temperature.

Key Features and Benefits

- Low-Durometer
- Non-Tackiness
- Sensory Characteristics (Added Cushioning)
- Rapid molding cycle times - > 20-60 seconds
- Convenient 1:1 Mix Ratio
- Outstanding Thermal Cycling Performance

Typical Physical Properties

| <u>Uncured Properties</u> | <u>LIM6010-A</u> | <u>LIM6010-B</u> |
|---------------------------|------------------|------------------|
| Appearance | Clear | Clear |
| Specific Gravity | 1.05 | 1.05 |
| Viscosity (cps) | 30,000 | 30,000 |

| <u>Cured Properties</u> <u>(75 mils thick)</u> | <u>As Molded 30 secs @ 177°C</u> | <u>Postbaked 1 hr @ 177°C /</u> |
|---|---|--|
| | <u>/350°F</u> | <u>350°F</u> |
| Hardness, Shore A Durometer | 10 | 15 |
| Tensile Strength, psi (MPa) | 400 (2.76) | 450 (3.10) |
| Elongation, % | 510 | 440 |
| Tensile Modulus, 100%, psi (MPa) | 36 (0.25) | 55 (0.38) |
| Tear Strength, Die B, lb/in (KN/M) | 32 (32.5.62) | 60 (10.51) |

Typical product data values should not be used as specifications.

Assistance and specifications are available by contacting Momentive Performance Materials.

Potential Applications

The combination of low-durometer and non-tackiness allows the product to be used in such consumer goods applications, where 'soft touch' sensory characteristics are important.

- Corn Pads
- Heel Inserts

Processing Recommendations

Ready-to-use mixtures (of the components A and B) are fed directly to the injection-molding machine from the original containers by means of a metering and mixing unit. The mixture, consisting of the two components in the ratio 1:1, is injected into the heated mold. At mold temperatures of 170 - 230°C, the addition-crosslinking silicone rubber typically vulcanizes, without any dissociation products, within a few seconds. High curing speed and easy demolding can help enable fully automated production of a large number of articles in short cycle times.

Regulatory Compliance

- A representative sample of an analogous product to LIM 6010 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” ⁽¹⁾
- Compositionally compliant with 21 CFR 177.2600 – Rubber articles intended for repeated use⁽²⁾

(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

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For literature and technical assistance, visit our website at: www.momentive.com

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