Technical Data Sheet

LSR 2650 JP, LSR 2660 JP, LSR 2670 JP

高強度射出成形用液状シリコーンゴム

LSR 2650 JP,LSR 2660 JP,LSR 2670 JPは、射出成形用2成分液状シリコーンゴムです。A成分と B成分を1:1の割合で混合し加熱成形することにより、高強度のシリコーンゴム成形品が得られ ます。流れ性に優れ、短時間で硬化するため、射出成形時間ならびに全体のサイクル時間を減 すことで高い生産性が得られます。硬化後のゴムは、引裂強さ、透明性に優れています。

特 長

- 高強度です。
- 短時間で硬化します。
- 流れ性、透明性、耐熱性に優れています。

用 途

- ガスケット、パッキン、コネクターシール、O-リング、ダイヤフラム、キーパッド、スイッ チカバー、スイミングキャップ、スポーツゴーグルなど

特性例

硬化前の特性

項 目	LSR 2650 JP	LSR 2660 JP	LSR 2670 JP
外観	乳白色半透明		
粘度 (20℃、DIN 53018) A/B Pa·s	450/450	450/450	550/550
配合比 (重量比)	1:1		

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硬化後の特性 (一次加硫：170℃、10min / 二次加硫：200℃、4h)

項 目	LSR 2650 JP	LSR 2660 JP	LSR 2670 JP
密度 (20℃、DIN 53 479A) g/cm^3	1.12	1.12	1.13
硬さ (Shore A、DIN 53 505)	52	60	70
引張強さ (DIN 53 504 S2) N/mm^2	10.0	10.0	9.5
切断時伸び (DIN 53 504 S2) %	550	450	350
引裂強さ (ASTM D624 die B) N/mm	50	50	20
圧縮永久ひずみ* (DIN 53 517) %	25	25	20

*175℃、22h

規制への適合性

本製品は適正な条件で加硫硬化された場合、その硬化物は米国FDA規則21CFR §177.2600 Rubber articles intended for repeated use に適合する成分から構成されていることを 確認します。なお、最終的にFDA規則適合と判断するためには、前記の成分適合のほか、実際の食品接触用途を想定した溶出試験において、当該規則の要求事項を たすことが必要です。溶出試験に係わる適否の確認は、食品包装・機器関連業者等(食品接触 容器メーカー、食品接触機器メーカー、食品メーカーなど)の責務となっております。

使用方法

- 射出成形機に付帯する計量/混合機によって、A成分とB成分の1：1混合物を準備し、140～200℃ に加熱した金型に射出成形します。
- A成分とB成分の混合物は、加熱しなくても硬化が徐々に進みますが、25℃で3日間位までは射 出成形が可能です。その後は急速に硬化が進みますので、それ以上使用しない場合は、機器 内に滞留している材料を溶剤で洗浄しておいてください。

注）窒素・イオウ・リン・スズ等を含む有機化合物、ハンダフラックス、ポリ塩化ビニル、ポ リウレタン等と接触すると硬化不良を起こす場合があるため注意してください。

取扱い上の注意

- 取扱い時には、保護眼鏡および必要に応じて保護手袋を着用してください。
- 換気のよい所で使用してください。

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保 管

- 直射日光を避け、湿気の少ない屋内冷暗所に保管してください。
- 子供の手の届かない所に保管してください。

荷姿・梱包

- A成分：20kgペール缶、200kgドラム
- B成分：20kgペール缶、200kgドラム

消防法分類

- A成分：非危険物。指定可燃物、合成樹脂類に該当。
- B成分：非危険物。指定可燃物、合成樹脂類に該当。

特許状況

本書のいかなる内容についても、関連特許が存在しないことを暗示したものと解釈してはならず、またいかなる特許についても、その権利者による許可なく、その特許が対象とする発明を実施するための許可、誘因または推奨を構成するものと解釈してはなりません。

製品の安全性、取り扱いおよび保管

製品の安全情報、安全な取扱手順、個人用保護具（必要な場合）、緊急サービスの連絡先情報、および安全な保管に必要な条件については、最新の安全データシート（SDS）および製品ラベルで確認してください。SDS は www.momentive.comで入手するか、あるいは MPM の担当者にご依頼ください。他の素材を MPM 製品（例：プライマー）と合わせて使用する際は、追加的な注意が必要になる場合があります。他の素材の製造者による安全情報を読み、それに従ってください。

制限

お客様はモメンティブ・パフォーマンス・マテリアルズ製品を評価し、特定の用途に対する使用適合性をご自身で判断する必要があります。

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Description

Silopren LSR 2650 is a two-component liquid silicone rubber for injection molding processes. In comparison to Silopren LSR 2050, Silopren LSR 2650 shows a lower viscosity, improved tear resistance and a higher reactivity. Therefore, it is also possible to reduce the vulcanization temperature while maintaining a standard crosslinking rate. The increased reactivity does not affect the properties of the vulcanizate.

Key Features and Benefits

Vulcanizates of Silopren LSR 2650 are typically distinguished by the following properties:

- High reactivity, lower viscosity, shorter cycle time
- Excellent thermal stability
- High stability and flexibility at low temperatures
- Good rubber-like properties, high tear resistance
- Long service life at dynamic stress
- High stability to ozone and ultraviolet light
- Outstanding resistance to aging
- Excellent dielectric behavior over a wide range of temperatures
- Easily pigmentable with LSR color pastes
- KTW approved

Typical Physical Properties

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Typical Properties of the Rubber:			
		A-part	**B-part**
Appearance		Translucent	Translucent
Viscosity in Pa•s gamma= 10 s^{-1} at 20°C	DIN 53018	450	450
The pot-life of the mixture of the two components (closed vessel) at 20°C is usually three days. Increased temperatures reduce the pot-life.			
Typical Properties of the Vulcanizate: Mixing Ratio of Components A : B = 1 : 1. Vulcanization: 10 min. 175°C + 4 hrs 200ºC post-cure			
Density	DIN 53 479 A	g/cm^3	1.12
Shore A Hardness	DIN 53 505		52
Tensile Strength	DIN 53 504 S2	N/mm^2	10.0
Elongation at Break	DIN 53 504 S2	%	550
Compression Set	DIN 53 517 (22 h at 175°C)	%	25

Typical data are average data and actual values may vary.
Typical data shall not be used as product specifications.

Potential Applications

Because of its outstanding properties, Silopren LSR 2650 is an excellent candidate to consider for the following elastomeric articles:

- Sealing elements
- O-rings
- Stoppers
- Diaphragms
- Keypads
- Pacifiers
- Baby teats
- Vibration dampers
- Air vent flaps
- Switch cover
- Breast shields
- Nose pads

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- Pressure cookers parts
- Spark plug boots
- Cable connectors

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 140 - 200°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 the fully automated production of a large number of articles in short cycle times.

Regulatory Compilance

- Compositionally compliant with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f)[(1)]
- The ingredients are listed in the BfR recommendation XV “Silicones” [(3)]
- KTW approved
- In compliance with the requirements of the DVGW Working sheet W 270
- WRAS approved product (BS 6920)

(1) 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.
(2) Please contact Product Stewardship and Regulatory Group for details
(3) 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

Containers

Silopren LSR 2650 is available in 20 kg pails and 200 kg drums.

Patent Status

本書のいかなる内容も、関連特許が存在しないことを暗示したものではありません。またいかなる特許についても、その権利者による許可なしに、その特許が対象とする発明を実施する

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ための許可、誘因または推奨を構成することはできません。

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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