



HIGH-PERFORMANCE SILICONE ELASTOMERS
FOR RAILWAY APPLICATIONS.

FLEXCOMP[®] Compounds

- ▶ Safely applicable
- ▶ Highly flexible
- ▶ Flame resistant
- ▶ Certified

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RELIABLE – SAFE – LONG-LASTING: FLEXCOMP® SILICONES.

Silicones of the Series FLEXCOMP® RB are compounds with extraordinary properties, which predestine them especially for applications in the railway sector.

FLEXCOMP® Silicones are

- ▶ Permanently elastic, no melting or creeping
- ▶ Resistant to ozone, UV radiation, salt water, industrial climate and weathering; repels water and dirt
- ▶ Resistant to cold (down to -110°C) and heat (up to 300°C).

SPECIAL BENEFITS THAT FLEXCOMP® OFFERS THE RAILWAY INDUSTRY.

FLEXCOMP® Silicones from M+S Silicon are ground-breaking developments of a market leader of silicones in railway applications:

- ▶ Low flammability
- ▶ Extremely low smoke density when burning
- ▶ No toxic fumes
- ▶ Free of brominated flame retardants
- ▶ Broad portfolio
- ▶ Certifications of all relevant norms available (see table).

RANGE OF APPLICATION OF FLEXCOMP® IN THE RAILWAY SECTOR.

FLEXCOMP® is being processed into extrudates, calendered sheets and moulded parts, and also finished parts:

- ▶ Edge and finger protection profiles, e.g. for doors
- ▶ Sealing profiles, frames, or rings, e.g. for windows, rooflights
- ▶ Sealings for equipment, machines, motors, ...
- ▶ Sheetings / laminates, e.g. for bellows and flooring.



FLAME-RESISTANT SILICONES FOR THE RAILWAY INDUSTRY – CERTIFIED CLASSIFICATIONS.

| | EN 45545-2 | shore hardness | curing system | colour |
|---|---------------------|------------------|----------------|-----------|
| FLEXCOMP® Series RB-R: flame resistant, universally applicable | | | | |
| RB-R 50010 | R22/R23: HL3 | 50° | peroxide cured | blueblack |
| RB-R 60010-03 | R22/R23: HL3 | 60° | peroxide cured | black |
| RB-R 70010-03 | R22/R23: HL3 | 70° | peroxide cured | black |
| RB-R 70020 | R22/R23: HL3 | 70° | peroxide cured | blueblack |
| RB-A-U 60010-03 | R22/R23: HL3 | 60° (untempered) | platinum cured | blueblack |
| RB-A-U 70010-03 | R22/R23: HL2 | 70° (untempered) | platinum cured | blueblack |
| FLEXCOMP® Specialities: a selection | | | | |
| STRB 25130-02 high tear strength with flame retardants | R22: HL2 / R23: HL3 | 25° | platinum cured | blueblack |
| STRB 60130-01 high tear strength with flame retardants | R22/R23: HL3 | 60° | platinum cured | blueblack |
| STRB70130-01 high tear strength with flame retardants | R22/R23: HL3 | 70° | platinum cured | blueblack |
| X-RB-R 50010 flame resistant silicone foam, density 0,40 g/cm ³ | R22/R23: HL3 | - | peroxide cured | blueblack |

Conformities, e.g. according to UL 94, and other details will be answered by our customer service.

FLEXCOMP® THE COORDINATES.

FLEXCOMP® compounds offer an extremely broad range of properties. A selection:

| | |
|--|--|
| Hardness | 10-95 Shore®A |
| Temperature Range | -110°C - +300°C (-166°F - +572°F) |
| Density | 0.95 – 2.30 g/cm ³ (foamed 0.23 - 1.10 g/cm ³) |
| Tensile Strength (breakpoint) | 3 – 13 N/mm ² (MPa) |
| Tear Strength (Notch Resistance) | 10 – 63 N/mm (ASTM D 624 B) 3 – 25 N/mm (DIN 53507) |
| Elongation at Break | 100 – 1500 % |
| Rebound Resilience (Elasticity) | 25 – 75 % |
| Compression Set (Permanent Deformation) | 50 – 0 % (175°C, 22h) 20 – 3 % (125°C, 22h) 10 – 0 % (100°C, 22h) |
| Flammability Classification | EN 45545-2, BS 6853, NFPA 130, UL94 |

FLEXCOMP® TYPE SERIES WITH ESPECIALLY INTERESTING PROPERTIES:

- FLEXCOMP® STR** ▶ World record holder in tensile strength for silicones, basis for our new developments FLEXCOMP® STRB
- FLEXCOMP® RH** ▶ Outstandingly high heat resistance, for applications close to motors etc.
- FLEXCOMP® RC** ▶ Extremely resistant to cold, for applications in cooling
- FLEXCOMP® F** ▶ Fluoro silicones with exceedingly increased chemical resistance
- FLEXCOMP® X und FX** ▶ Foamed silicones and fluoro silicones for reduced weight and highly compressible items

Disclaimer: The mentioned figures are intended as a guide and should not be used in preparing specifications. They have been taken from pressed plates and represent our current status of knowledge. They do not liberate the customer from careful end-use application tests, neither from the duty to check on violations of proprietary rights. We reserve the rights for alterations at any point.

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