Roadway Surface insulation Technical sheet

Description of the product	The materials included in the Siconofloor Roadway system are intended for the execution of insulation-surface in communication construction within the scope specified in point 2.2 of the National Technical Assessment (KOT), including on the surfaces of pedestrian pavements, bicycle paths, technical pavements, footbridges, car parks, on steel or concrete bridges, drawbridges and modular bridges, as well as on all concrete and steel surfaces.
Application	• Insulation-surface on elements of structures heavily loaded with pedestrian traffic of at least 2 mm thickness and wheeled traffic of at least 4 mm thickness, in particular on: o Bridge walkways, o Pedestrian-cycle crossings o Pedestrian crossings o Car parking lots, o Ramps. • Insulation-surface in ballast troughs of railway bridge structures with a thickness consistent with the construction documentation (in accordance with the National Technical Assessment (KOT) record, the Roadway insulation-surface does not require additional protective layers only in the case of securing it during filling the ballast trough with ballast). In this case, the basic material that forms the main layer of insulation-surface is the Roadway BC or Roadway BC-PU. • Insulation-surface in the standard variant without a “floating” layer with the ability to bridge floor scratches, designed to be made on concrete or steel substrates with a thickness of 2-5 mm or 4-6 mm • Insulation-surface in a variant with increased flexibility, with a “floating” layer with increased flexibility, with an increased ability to bridge scratches, designed for use on concrete substrates with a thickness of 4-6 mm • For vertical surfaces of a 3 mm thick ballast bed
Properties	• Hybrid epoxy-polyurethane material, • Very high adhesion to steel substrate using Siconofloor Roadway 160 primer, • Non-slip surface, • High resistance to abrasion, scratches, punctures and impacts. • Resistance to de-icing salts, • Increased resistance to UV radiation • Good chemical and mechanical resistance, • Frost resistance, • Flexibility.

Product information	
Packing	Sets of 20 kg
Appearance/colour	The RAL palette applies. Due to the characteristics of the natural raw materials used, slight colour deviations between individual production batches are possible.
Storage time	6 months for Roadway BC,BC-PU and Finisher, Finisher PU, and for other materials up to 12 months.
Storage conditions	Products included in the Roadway set should be stored in original, tightly closed containers, in heated and dry rooms.

The performance properties of the Siconofloor Roadway insulation-surface are given in National Technical Assessment (KOT) No. 2022/0854 edition 1. These characteristics depend on the variant and type of product used.

Application	
Preparation of the substrate	The concrete substrate should be strong, dry (with a moisture content of up to 4%, in the case of a humidity of 5-15%, it is recommended to use Siconofloor Roadway 150 priming resin), clean, slightly rough, with open pores, and made in accordance with construction standards. All impurities such as: cement milk, dust, oil, grease marks, fragments that are loose, unbound or poorly attached to the substrate, and old coatings should be removed. The average tensile strength of the concrete, measured by the “pull-off” method, should not be less than 1.5 MPa. The mature concrete must be ground. The required time for maturing of concrete, cement, and repair materials must be observed. The surface of the steel substrate should be cleaned of all impurities, salts and grease. Degree of preparation of the surface Sa 2 ½ according to PN ISO 8501-1:1996. Substrate roughness not less than 75 µm according to PN EN ISO 8503-2:1999.
Priming conditions	The substrate temperature should be +12~30°C. Note that the lower the temperature, the longer it takes for SICONOFLOOR ROADWAY to cure. The ambient temperature should be +12~30°C. The substrate should be dry, dust-free and degreased. If the primed surface is left for the next coats, with a break exceeding 48 hours, the primed surfaces should be gently matted by sanding with fine sandpaper and then vacuuming the remaining dust. The newly laid SICONFLOOR ROADWAY must be protected from moisture and the direct action of water,

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<tr><td colspan="2"></td><td colspan="2">for at least 24 hours after the completion of the application. The formation of milky discolouration on the surface indicates the contact of fresh material with moisture, resulting in a discrepancy in the properties of the final product from the properties declared by SICON Sp. z o.o Sp. K..</td></tr>
<tr><td colspan="2">Material preparation</td><td colspan="2">Particular materials included in the SICONOFLOOR ROADWAY systems should be prepared for application in accordance with the data contained in their Technical Data Sheets.</td></tr>
<tr><td colspan="4">Application data of the insulation-surface system 3.0-4.0</td></tr>
<tr><td>Order of application</td><td>Number of layers</td><td>Layer type</td><td>Material name</td></tr>
<tr><td>1</td><td>1-2</td><td>Primer</td><td>Siconofloor Roadway 130; optional Siconofloor Roadway 150</td></tr>
<tr><td>2</td><td>1</td><td>Quartz aggregate</td><td>Fire-dried quartz sand of 0.8-1.2 mm fraction</td></tr>
<tr><td>3</td><td>1</td><td>Main layer</td><td>Siconofloor Roadway BC or Siconofloor BC-PU</td></tr>
<tr><td>4</td><td>1</td><td>Quartz aggregate</td><td>Fire-dried quartz sand of 0.8-1.2 mm fraction</td></tr>
<tr><td>5</td><td>1</td><td>Sealing layer</td><td>Siconofloor Roadway Finisher or Siconofloor Finisher PU</td></tr>
<tr><td colspan="2">Performance of the Siconofloor Roadway epoxy system for thickness 3.0-4.0 mm</td><td colspan="2">Siconofloor Roadway 130 - 0.5 kg/m^2
Quartz aggregate 0.8 -1.2 mm -1.5 kg/m^2
Siconofloor Roadway BC – 1.25 kg/m^2 Quartz aggregate 0.8-1.2 mm – 3.5 kg/m^2 Siconofloor Finisher – 1.25 kg/m^2</td></tr>
<tr><td colspan="2">Performance of the epoxy-polyurethane system Siconofloor Roadway for thickness 3.0-4.0 mm</td><td colspan="2">Siconofloor Roadway 130 -0.5 kg/m^2
Quartz aggregate 0.8-1.2 mm -1.5 kg/m^2
Siconofloor Roadway BC-PU – 1.25 kg/m^2
Quartz aggregate 0.8-1.2 mm – 3.5 kg/m^2
Siconofloor Finisher-PU – 1.25 kg/m^2</td></tr>
<tr><td colspan="2">Description of system implementation</td><td colspan="2">The concrete substrate must be primed according to the instructions given in the Technical Sheet of priming material Siconofloor Roadway 130/Roadway 150- consumption 0.3 kg/m^2. Directly after laying, the primer should be covered with fire-dried quartz sand with a fraction of 0.8÷1.2 mm, in the amount of approx. 1.5 kg/m^2. Remove excess sand after the priming layer has hardened. The Siconofloor Roadway BC or Roadway BC-PU material must be prepared according to the instructions in the Technical Data Sheet of the product. The material should be poured in portions on a primed concrete substrate and spread evenly with a metal trowel. The consumption of the resin mixture is 1.25 kg/m^2, then the unhardened layer of material is covered "till dry" with fire-dried quartz sand with a grain size of 0.8÷1.2 mm - consumption 3.5 kg/m^2. Allow the layer to cure for at least 12 hours (at +20°C). After this time, the excess sand should be carefully removed with a brush and/or industrial vacuum cleaner then the whole floor should be sanded depending on the expected anti-slip effect.
Sealing layer - prepared in accordance with the Technical Data Sheet of the Siconofloor Roadway Finisher or Roadway Finisher -PU material. The material should be poured in portions onto a hardened and prepared resin layer with quartz sprinkles. The theoretical resin consumption is 1.25 kg/m^2. The number of layers of the sealing layer can be adjusted to the target floor roughness. After applying the final layer, a drying temperature above +15°C should be maintained for at least 18 hours.</td></tr>
<tr><td colspan="4">Comments and recommendations</td></tr>
<tr><td colspan="2">Health and safety conditions</td><td colspan="2">Wear protective clothing, gloves and goggles whenever handling resin. When working in confined or enclosed spaces, and during drying, adequate ventilation must be provided. Do not weld or expose open flames during the work. Use lighting lamps with the appropriate protection. Detailed information regarding health, safety, ecology, toxicological properties of the materials included in the system, etc. is available in the Material Safety Data Sheet of the relevant SICONOFLOOR ROADWAY product. Do not allow contact with the skin. Avoid breathing vapours from heated material. Do not allow individual components to come into contact with acids, strong oxidisers, alkalis. All employees should be thoroughly trained in the handling of epoxy resins and hardeners for existing hazards. Allergy sufferers must not be commissioned to work with resins. Protective gloves and goggles must be worn if there is a risk of resins splashing. Always wash your hands with water and mild cleaning agents after contact with the skin. Do not use benzene, toluene or carbon tetrachloride! For reasons of hygiene reasons, do not eat or drink in the workplace, and do not smoke there.</td></tr>
<tr><td colspan="2">Final remarks</td><td colspan="2">These specifications are based on trials and laboratory tests. Practical results of measurements may differ from those provided, due to circumstances beyond the control of Sicon z o.o. Sp. K Sp. K. All information is given in good faith and takes into account current knowledge and experience.
The manufacturer indicates that the colour of the finished floor may vary. This phenomenon does not indicate a defect in the floor or reduced technical specifications. Possible discolouration may occur due to the way the work and drying are performed. It is recommended that particular areas be covered from batches of material from one production run. The product documentation constitutes general information, appropriate under certain conditions.</td></tr>
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	It is recommended to carry out an application test under specific construction environmental conditions prior to large-scale application of the product. The supplier has no influence on the types of use, application methods or execution conditions on the site, therefore these instructions may not be held responsible for the end result of the application. Recommendations of Sicon's associates that deviate from the information in the technical sheet are mandatory only if they are confirmed in writing. Issue date: 08/2023