

Technical Data Sheet

Product description	Colorless, two-component, solvent free, epoxy, low-viscosity resin. Ideal for systems sprinkled with colorful aggregate as a bonding bridge between the soil and the varnish. Also used as a resin for screeds, to strengthen the substrate and for "Stone Carpet" type flooring.	
Use	<ul style="list-style-type: none">• Impregnation and reinforcement of all types of mineral substrates,• Possibility of filling the material, as a high build, transparent resin screed without fillers,• Material to be used inside and outside buildings as a bonding bridge and structural coating.	
Properties	<ul style="list-style-type: none">• Very high intercoat adhesion,• High degree of transparency,• High chemical resistance,• Good resistance to abrasion,• Good mechanical parameters (hardness, tensile strength, bending strength),• Ensures hydrophobic properties,• Low viscosity,• Easy application,• Good penetration of mineral substrates,• Frost resistance,• Application versatility,• Reduced tendency to crystallize.	
Physical properties of Siconofloor B50-E		
Form	Component A modified epoxy liquid	
	Component B amine curing agent	
Density (according to PN EN ISO 1675)	Component A	1.05~1.2 g/cm³
	Component B	0.99~1.15 g/cm³
Suitability for use	30 minutes at 20°C	
Theoretical consumption of the blend	0.7~1.2 kg/m² when used as a bonding bridge	
Color and odor	Component A transparent and odorless	
	Component B liquid with a characteristic odor	
Hygiene tests	Meets the requirements; Hygienic Certificate No. HK/B/0757/01/2015	
Curing time	Light load 24h at 24h w 25°C	
	Full load	7 days
Practical use of the blend	It strongly depends on the use, aggregate fractions, application technique, application conditions, roughness degree: min. 0.4 kg/m²	
Viscosity (Brookfield DV-II). The test was conducted at 20°C using 04 spindle and rotational speed. 20 RPM.	Component A	1090~1100 mPa*s
	Component B	700~732 mPa*s
Mechanical properties of Siconofloor B50-E		
Dust dryness		12 hours at 20°C
ShA hardness (after 7 days)		100°
ShD hardness		83°
Application		
Substrate preparation	The substrate must have sufficient compressive strength (minimum 25 N/mm²). The surface must be flat, slightly rough, dark and dry, cleaned of all contaminants. "Pull off" test should not give a result below 1.5 N/mm². If in doubt, make a reference area. Parts of the substrate with insufficient strength, cement slurry and fragments contaminated with oils must be removed mechanically, e.g., by means of grinding or milling. Before the material application, the substrate must have open pores. Immediately before the material application, the substrate must be dusted and vacuumed.	
Application conditions	Substrate temperature should be 5~40°C. Please note, that the lower the temperature, the longer the process of SICONOFLOOR B50-E curing. Ambient temperature should be 5~40°C. Substrate moisture content should be a maximum of 5%. Relative humidity of the air should be a maximum of 80%. Temperature of the substrate and uncured flooring must be at least 3°C above the dew point. The freshly applied SICONFLOOR B50-E must be protected from moisture and direct water impact for at least 24 hours after the end of the application. The formation of milky spots on the surface indicates contact of the fresh material with moisture resulting in a discrepancy between the properties of the final product and the properties declared by SICON POLSKA. In the case of the need for artificial heating, do not use gas, oil, paraffin nor other fossil fuels heaters. During their operation, those devices emit large amounts of water and carbon dioxide in the form of water vapor, which significantly interfere with the curing of the resin. Use only electric heaters for heating.	
Application methods	First mix A component, then add B component, mix the components until a uniform consistency, but not for less than 3 minutes. Quartz sand may be added to the mixed A and B components, if required, mix for other 2 minutes until a homogeneous blend. Stirring ratios of Component A and Component B are indicated on the packaging and they must not be changed. Changing the proportions results in a product with characteristics different from the ones declared by the manufacturer. Over string can cause air entrainment and therefore it	

	should be avoided. Use low speed electric stirrer for the resin mixing (300 ÷ 400 rpm) or another suitable equipment.
Priming coating	Apply SICONOFLOOR B50-E using a brush or a roller according to the art of painting, ensure that a uniform and continuous coating is obtained. Apply a second coat if necessary. Resin screed (only in the case of indoor areas). Apply on hardened and primed substrate (SICONOFLOOR GF or SICONOFLOOR B50-E material) SICONOFLOOR B50-E to the desired thickness using a trowel or squeegee on special teeth. So distributed resin must be bleed using a roller with spikes.
Resin screed	Spread SICONOFLOOR B50-E along with appropriate aggregate using battens of steel, best on guide rails. After a short time, the mortar must be compacted and leveled with fingers or a mechanical float (20-90 rpm) with blades coated with chemical resistant material. The proportions of SICONOFLOOR B50-E resin to the aggregate depends on the aggregate grain size, but the most commonly 10% of resin weight of the aggregate is used. Wash tools with acetone or xylene immediately after use. Hardened or cured material can only be removed mechanically.
Conditions of the system components storage	SICONOFLOOR B50-E resin is a material with a reduced tendency to crystallization process. Store it in a dry place at +5~30°C. Components A and B in a liquid state are the agents causing water pollution and should not get into drains, soil and watercourses. After curing the resin is environmentally neutral.
Comments and recommendations	
Health and safety conditions	Use protective clothing, gloves and goggles when working with resins. Adequate ventilation must be ensured when working in cramped or confined spaces and when drying. Do not weld nor approach naked flame sources, when working. Use the illumination lamps with appropriate protections. Detailed information concerning health, safety, and ecological data, material toxicological properties data, etc. is available in the Material Safety Data Sheet of SICONOFLOOR B50-E. Do not allow contact with the skin. Avoid inhaling vapors of the heated material. Avoid contact of the individual components with acids, strong oxidizing agents, alkalis. All employees should be thoroughly trained in the handling of epoxy resins and curing agents, in terms of the existing threats. Do not assign work with resins to allergy sufferers. Use protective gloves and goggles in case of the resin splashes risk. After each resin contact with the skin, wash your hands with water and a mild detergent, do not use benzene, toluene or carbon tetrachloride! For hygiene reasons, do not eat, drink, nor smoke in the workplace.
Final remarks	<p>The included technical specifications are based on laboratory tests. Actual measurements results may vary from the enclosed ones, due to circumstances beyond the control of Sicon LTD. All information is provided in good faith, taking into account the current state of the art and the experience gained.</p> <p>The manufacturer advises that the color of the executed flooring may vary. The resulting phenomenon does not indicate any defect or reduced technical parameters of the flooring. Any discoloration may occur due to the working or drying methods. It is recommended to execute certain surfaces with materials originating from one production run only. The product documentation provides for a general information applicable under certain conditions.</p> <p>It is recommended that before using the product on a large scale, the purchaser tests it under specific construction environment conditions. The supplier has no control over the use, methods of application and execution conditions occurring at the construction site, and therefore no responsibility of the supplier for the final effect of the application may arise from these instructions. Recommendations of Sicon partners that differ from the information included in the Safety Data Sheet shall apply only in the case of their written confirmation.</p> <p>Date of issue: 01/2016</p> <p>All previously issued Siconofloor B50-E safety data sheets shall expire on the date of issue of this sheet.</p>