

Technical sheet

Product description	Universal resin preparation for priming and impregnating concrete. Perfect for making resin mortars and screeds. Colourless, two-component, low-viscosity epoxy resin with a filler in the form of quartz aggregate of specific granulation. ECONOMICAL VERSION OF G13-E RESIN.		
Application	<ul style="list-style-type: none">• Material for use inside buildings as a finishing layer,• Priming surfaces of concrete, cement mortars, mortars and resin coatings,• As a primer for epoxy and polyurethane systems,• Binder for the creation of repair mortars, screeds and levelling putties,• Protection of concrete against dusting and penetration of moisture,• Impregnation and strengthening of all types of mineral substrates,• Material for use inside and outside buildings.		
Properties	<ul style="list-style-type: none">• High adhesion (above 2MPa),• No tendency to sedimentation (does not settle),• No tendency for hole formation on a properly prepared substrate,• Increases the adhesion of subsequent layers of the substrate,• Good mechanical parameters, (hardness, bending strength, tensile strength),• Provides hydrophobic properties,• Ease of application,• Short working breaks between successive layers (possibility of applying two layers in one day),• Versatility of applications,• Frost resistance,• Reduced tendency to crystallize,• Good value for money.		
Physical properties of Siconofloor G13-E			
Character	Component A modified epoxy liquid		
	Component B amine hardener		
Density (according to PN EN ISO 1675)	Component A	1.05~1.2 g/cm ³	
	Component B	0.99~1.15 g/cm ³	
Working life	15 minutes for a temperature of 20°C, depending on the parameters of the filler (gradation / shape)		
Theoretical consumption of the mixture	0.3~0.6 kg/m ² when used as primer resin		
Colour and smell	Component A is coloured and odourless		
	Component B is transparent and with a characteristic smell		
Hygiene tests	Meets requirements; hygiene certificate nr HK/B/0757/01/2015		
Practical consumption of the mixture	Strongly depends on the intended use, substrate quality (absorptivity), application technique, application conditions, degree of roughness. Average consumption 0.3~0.5 kg/m ² . Two layers of resin are recommended for porous substrates.		
Curing time	24h light loads at 25°C		
	Full load capacity	7 days	
Viscosity (according to Brookfield DV-II). Test performed at 20°C with a 04 spindle and 20 RPM rotational speed.	Component A	310~320 mPa*s	
	Component B	100~110mPa*s	
Mechanical properties of Siconofloor G13-E			
Content of non-volatile substances (according to PN-EN ISO 3251:2008)	80°C	97.91 ± 1 %	
	105°C	97.00 ± 1 %	
ShA hardness (after 7 days)	100°		
ShD hardness (after 7 days 80 ShD)	10°	after 24h 55° ShD	
		after 48h 80° ShD	
	20°	after 24h 70° ShD	
		after 48h 80° ShD	
Application			
Preparation of the substrate	The substrate must have sufficient compressive strength (minimum 25 N/mm²). The surface must be even, slightly rough, strong and dry, free from loose particles. The “pull off” test should not give a result below 1.5 N/mm². If in doubt, a reference field should be made. Fragments of the substrate of insufficient strength, cement laitance and fragments contaminated with oils or other separating substances must be removed mechanically, e.g. by shot peening, grinding or milling. The substrate must have open pores before the material is applied. Immediately before application of the material, dust and particulate matter should be removed from the substrate.		
Priming conditions	The temperature of the substrate should be +5~30 °C. It should be remembered that the lower the temperature, the longer the curing process of SICONOFLOOR G13-E. Ambient temperature should be +5~30°C. Substrate humidity should be max 5%. Relative air humidity should be a maximum of 80%. The temperature of the substrate and uncured flooring must always be 3°C above the dew point temperature. If the primed surface is left for the next coats with a break exceeding 48 hours, it should be gently matted by sanding with fine sandpaper and then vacuuming the		

	<p>remaining dust. Freshly applied SICONOFLOOR G13-E must be protected against moisture and direct exposure to water for at least 24 hours from the completion of application. The formation of laitance discolouration on the surface indicates contact of fresh material with moisture resulting in divergence in the properties of the final product from the properties declared by SICON Poland.</p> <p>If artificial heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. During the operation of such devices, large amounts of water and carbon dioxide in the form of water vapour are released, which significantly disturb the hardening process of the resin. Use only electric heaters for heating.</p>
Application methods	<p>Pre-mix component A and then add component B, then mix the components until a homogeneous consistency is obtained, but not less than 3 minutes. NOTE: Quick-setting material. Mix components A and B and then apply in portions. Quartz sand can be added to the mixed components A and B of the resin, if required, mix for another 2 minutes until a homogeneous mixture is obtained. The mixing ratio of Component A and Component B is shown on the packaging and must not be changed. Changing the proportions will result in a product with properties different from those declared by the Manufacturer. Mixing for too long may cause air entrainment and should therefore be avoided. To mix the resin, use a low speed electric stirrer (300 ~ 400 rpm) or other equipment designed for this.</p>
Priming layer	<p>Apply SICONOFLOOR G13-E with a brush or roller according to the art of painting, make sure that a uniform, continuous coating is obtained, if necessary, apply a second layer.</p>
Levelling mortar	<p>Spread the SICONOFLOOR G13-E mortar to the desired thickness with a trowel or a chemically resistant rubber squeegee.</p>
Resin screed	<p>SICONOFLOOR G13-E with the appropriate aggregate should be spread using steel battens, preferably on guides. After a short time, compact the mortar and level it with trowels or a power trowel (20+90 revolutions per minute) with blades covered with chemically resistant material. The proportions of the SICONOFLOOR G13-E resin to the aggregate depend on the aggregate grain size, but the most common is 10% by weight of resin to aggregate. After finishing work, the tools should be washed with acetone or xylene immediately after use. Cured and/or bound material can only be removed mechanically.</p>
Storage conditions for kit components	<p>The SICONOFLOOR G13-E resin is a material with a reduced tendency to undergo the crystallization process. It should be stored in a dry place at a temperature of 5-30°C. Component A and B in liquid state are water polluting agents and should not get into the sewage system, ground or water courses. After hardening, the resin is neutral for the environment.</p>
Comments and recommendations	
Health and safety conditions	<p>During all work with resins, use protective clothing, gloves and glasses. Adequate ventilation must be provided when working in confined or closed rooms, and during drying. When working, do not weld and do not come close to open fire sources. Use lighting lamps with appropriate safety measures. Detailed information on health, safety, as well as data on ecological, toxicological properties of the material, etc. are available in the Material Safety Data Sheet for SICONOFLOOR G13-E. Avoid contact with skin. Avoid breathing vapours from heated material. Do not allow individual components to come into contact with acids, strong oxidants, bases. All employees should be thoroughly trained in the handling of epoxy resins and hardeners with regard to the existing hazards. Allergy sufferers must not be commissioned to work with resins. If there is a risk of splashing the resin, use protective gloves and goggles. After each contact of the resin with the skin, wash with water with the addition of mild cleaning agents, do not use benzene, toluene or carbon tetrachloride! For hygiene reasons, you should not eat or drink in the workplace, and also not smoke there.</p>
Concluding remarks	<p>The technical data provided is based on laboratory trials and tests. Practical measurement results may differ from the attached ones, due to circumstances over which Sicon Sp. z o.o. Sp.K. has no control. All information is given in good faith and takes into account the current state of knowledge and experience.</p> <p>The manufacturer informs that the colour of the finished floor may vary. This phenomenon does not indicate a defect of the floor or reduced technical parameters. Possible discolouration may appear because of the way in which work and drying take place. It is recommended to cover specific surfaces with batches of materials from one production batch. The product documentation provides general information that is appropriate under certain conditions.</p> <p>Prior to large-scale use of the product, it is recommended that the purchaser perform an application test under the specific environmental conditions of the construction site. The supplier has no influence on the types of applications, methods of application and conditions of implementation occurring on a construction site, therefore, these instructions cannot result in his responsibility for the final result of the application. Recommendations of Sicon's associates that deviate from the information contained in the technical sheet, are binding only if confirmed in writing.</p> <p>Date of issue: 02/2019</p> <p>All sheets for the Siconofloor G13-E system issued so far shall expire on the day of the issuing of this sheet.</p>