



LEESON GRIP 2-1 (D3149/20)

LEESON GRIP 2-1 (D3149/20) is a two component solvent free polyurethane, which when used with aggregate, for example 1-3mm bauxite, produces a high grip resin bonded surface for roads, cycle paths, walkways and drives.

Usability:	Its ease of spreading allows for rapid application, and the cure speed for the product allows for application sites to be opened to use in a timely fashion.	
Site Safety:	LEESON GRIP 2-1 (D3149/20) is a solvent free system and does not require heat lances or burners to apply, lowering the number of risks installers may be exposed to.	
Versatile:	LEESON GRIP 2-1 (D3149/20) can be used to produce a range of surfaces include roads, pedestrian crossings, cycle paths, driveways, bridges, walkways, stairs, car park decks, ramps, flooring and airport runways. LEESON GRIP 2-1 (D3149/20) can be used with a range of aggregates to provide varied aesthetic finishes.	
Strong, resilient system:	The cured LEESON GRIP 2-1 (D3149/20) exhibits excellent resistance to extreme temperatures (-20°C to +120°C), moisture and chemical contact for extended periods without loss of strength.	

Technical Specification

	Specification		
Parameter	LEESON GRIP 2-1 (D3149/20)	LEESON GRIP 2-1 (D3149/20)	
	Part A Resin	Part B Hardener	
Colour:	Opaque Buff	Transparent Brown	
Specific gravity:	0.96 g/cm³	1.24 g/cm³	
Solids Content:	100%	100%	
Mixing Ratio by Weight:	2.15	1	
Mixing Ratio by Volume:	2.78	1	
Viscosity at 23°C:	4,000 ± 600 mPa.s	300 ± 75 mPa.s	
Mix Viscosity at 23°C:	1,600 ± 400 mPa.s		
Pot life at 19°C:	25 ± 5 minutes		

Parameter	Specification
Binder Tensile Strength (28 Days)	>16 N/mm ² to BS2782 part 3 methods 320A-320F
Binder Elongation (28 Days)	>100% BS2782 part 3 methods 320A-320F
Binder Hardness, Shore A (48 hrs)	>90



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Instructions For Use

Substrate preparation:

- The areas to which the System is to be applied shall be clearly defined and marked by the Purchaser on the existing road surfacing prior to commencement of work on-site.
- All imperfections in the road surface not acceptable to the Installer shall be reinstated with a material approved by the Purchaser in consultation with the Installer.
- The road surface shall be clean, dry and free from ice, frost, loose aggregate, oil, grease, road salt and other loose matter which may impair the adhesion of the System. Where the road surface does not comply with this it shall either be cleaned by the Installer or others, by grit blasting, high pressure water jetting, low pressure water/abrasive blast cleaning, scarifying, scrabbling or other means approved by the Purchaser. To remove dust and other loose matter the road surface should be vigorously brushed or treated with hot compressed air. Any oil visible on the road surface shall be removed by washing and scrubbing with a suitable detergent solution followed by flushing with clean water or by other suitable means.
- Existing road markings, ironwork, road edges or areas not to be treated and road studs shall be suitably masked.

Bituminous Surfaces:

- Asphalt should be at least 30 days old to ensure it is fully cured before installation. The road surface should have a texture depth of between 0.5mm and 2.0 mm as determined by the sand patch test.
- A cementitious scratch coat system can be used for filling porous asphalt to reduce topcoat consumption.

Concrete Surfaces:

• Concrete is to be hot compressed air blasted then primed with a solvented one component polyurethane primer with the primer being allowed to cure following the manufactures recommendations. The LEESON GRIP 2-1 (D3149/20) should be applied within the primer's overcoat window.

Steel:

• Steel is to be shot blasted to SA2½ and primed with a solvented aluminium paste based metal primer with the primer being allowed to cure following the manufactures recommendations. The LEESON GRIP 2-1 (D3149/20) should be applied within the primer's overcoat window.

Weather Conditions:

- Installation of the System shall only be carried out at a road surface temperature of 5°C to 35°C.
- Ambient and road surface temperatures together with relative humidity shall be recorded at the start and if
 weather is variable during the installation process.
- Road surfaces shall be dry before and during the installation of the System.
- The Installer will notify the purchaser of the curing period of the system dependent upon the prevailing weather conditions.

Application:

- 1. Premix the LEESON GRIP 2-1 (D3149/20) Part A, ensuring an even colour and consistency is achieved.
- 2. Add 1 part by weight of LEESON GRIP 2-1 (D3149) Part B to 2.15 part by weight of LEESON GRIP 2-1 (D3149/20) Part A and mix until a mass of uniform colour is obtained.
- 3. The application surface is then coated with the blend within 10 minutes (at 19°C) at a minimum coverage rate of 1 2 kg per m² dependant on surface porosity and then allowed to self-level to give total coverage.
- 4. The non-slip aggregate (moisture content less than 0.4%) is then scattered over the resin within 5 minutes at 19°C (application at elevated temperatures with shorten the product's cure time).
- 5. Excess aggregate can be removed after 2 hours.
- 6. The site can be reopened to traffic after 4 hours depending on ambient temperature or until the binder is hard to the touch.

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A bulk container of D4860 Accelerator can be supplied for addition to LEESON GRIP 2-1 (D3149/20). D4860 should be used to maintain the cure speed of LEESON GRIP 2-1 (D3149/20) at temperatures below 20°C:

Air Temperature (°C)	D4860 Addition Level
20	0ml per kit
17.5	2.5ml per kit
15	3.5ml per kit
12.5	4.1ml per kit
10	4.7ml per kit

DO NOT USE IN TEMPERATURES BELOW 5°C.

Colour Additions:

• LEESON GRIP 2-1 (D3149/20) can be pigmented with pigment packs, this is primarily done when using colour coated bauxites as the bonded aggregate. Pigmented packs should be mixed into the LeesonGrip D3149/20 Part A, thoroughly before adding the LeesonGrip D3149 Part B.

Pigment Pack	Addition Level
D3149P Black Pigment - Powder	0.77kg per kit
D5322 Red - Liquid	0.29kg per kit

Packaging

LEESON GRIP 2-1 (D3149/20) is supplied as a 17kg kit, with LEESON GRIP 2-1 (D3149/20) Part A supplied as 11.60kg in a 25 litre metal ring latch pail and LEESON GRIP 2-1 (D3149) Part B supplied as 5.40kg in a 5 litre plastic jerry.

<u>Storage</u>

LEESON GRIP 2-1 (D3149/20) Part A and LEESON GRIP 2-1 (D3149) Part B should be stored in their original, unopened containers, in dry conditions at a temperature between 10°C and 35°C. Storage outside of these conditions will reduce the product's shelf life. Once opened, containers of LeesonGrip D3149 Part B should be used within 14 days.

LEESON GRIP 2-1 (D3149/20) Part A and LEESON GRIP 2-1 (D3149) Part B have a shelf life of 12 months from point of manufacture.

Health and Safety

LEESON GRIP 2-1 (D3149/20) Part A is not classified as a hazardous substance, however, the wearing of goggles and gloves is to be recommended.

LEESON GRIP 2-1 (D3149) Part B contains a non-volatile isocyanate, when used in the European Union from 24 August 2023 adequate training is required before industrial or professional use. Before use, ensure that you have read the Safety Data Sheet for this product. Samples will be provided on request to enable customers to satisfy themselves as to the suitability of the product for any specific purpose and to assess the product under their own working conditions.

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- Ensure non-porous gloves and eye protection is worn when handling.
- Avoid prolonged contact with skin.
- In cases of contact with eyes, flush out with excess water and seek medical attention.

Additional Notes

This information is for general guidance only and may contain inappropriate information under particular conditions of use. All recommendations and suggestions are therefore made without guarantee. Samples will be provided on request to enable customers to satisfy themselves as to the suitability of the product for any specific purpose and to assess the product under their own working conditions.

Every care has been taken to ensure that the information provided in the literature is correct and up to date. However, it is not intended to form any part of a contract or provide a guarantee. Purchasers/intending purchasers should contact Leeson Polyurethanes to check whether there have been any changes to the information since publication of the literature. Please ensure you have read the hazard labels and material safety data sheet before using this product.

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