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# PRODUCT DATA SHEET

# Davco<sup>®</sup> SL 828

Polymer modified cementitious floor levelling compound for 5-50mm. C35-F7.

#### DESCRIPTION

Davco<sup>®</sup> SL 828 Level is a one-component, polymer modified, durable, fast track and versatile cementitious underlayment and overlayment for interior concrete and cementitious substrates. It can be applied manually or by pump at higher thickness with extreme low shrinkage to produce a self-smoothing, rapid-setting, flat and economical substrate prior to the application of a final floor finish.

#### USES

Davco<sup>®</sup> SL 828 is a multi-purpose floor levelling compound to level or smooth screeds and concrete floors at a thickness between 5-50 mm in one working step. Useable as screed for industry service conditions when sealed with a PU or EP resin top coat.

- Suitable for various floors, carpets, ceramics and floorcoverings.
- Will provide a fast over-coat able surface prior to the application of epoxy or polyurethane resins.

## **CHARACTERISTICS / ADVANTAGES**

- Easy and quick installation by manual and pump application
- Zero VOC content and low odour
- Highly fluid and self-levelling with good air release
- Very rapid hardening, can be walked on after 3 hours (+20 °C)
- Low shrinkage
- Good bonding and impact strength
- Maintains good workability and joint healing throughout its pot life
- Good surface appearance and hardness
- Application range as levelling or under layer from 5 mm up to 50 mm

Cement based, Polymer modified 25 kg/bag			
			Natural
6 months			
Store with original, unopened packaging. Store in cool, dry place.			
Approx. 2.0 kg/ltr (wet density)			

## **TECHNICAL INFORMATION**

**PRODUCT INFORMATION** 

Abrasion Resistance		Result	Requirement
	H22, 500 g, 100 r	0.14	≤ 0.5
	Test result according to JC/T 985-2005.		

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Compressive Strength		Result	Requirement		
	24 h	25	≥6		
	<u>28 d</u>	38	≥ 35		
	Test result accor	ding to JC/T 985-2005.			
Tensile Adhesion Strength	Result	F	Requirement		
	1.7 ≥ 1.0				
	Test result according to JC/T 985-2005.				
Reaction to Fire	A1				
APPLICATION INFORMAT	ION				
Consumption	~ 1.7kg/m²/mm Powder				
	This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.				
Ambient Air Temperature	+5 °C min. / +30 °C max. For increased surface strength and better bond of the floor finish when us- ing water based adhesives, it is recommended for best results to apply the mortar at ambient and substrate temperatures between 15 °C and 25 °C.				
Relative Air Humidity	< 75 % max.				
Substrate Temperature	+5 °C min. / +30 °C max.				
Equipment	Use an electric stirrer (< 600 rpm).				
Pot Life	<u>Conditions</u> +23 °C / 50 % r.h		- ime 20 minutes		
	Application at te	mperatures below +23	°C will reduce the pot life and the °C will increase the pot life and ex-		
Waiting Time / Overcoating	<ul> <li>Suitable for overcoating with impermeable or moisture sensitive floors after drying (max. 4 % humidity); normally reached after 24 hours in 5 mm thick.</li> <li>Times are approximate and at +23 °C and 50 % R.H. and thus will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.</li> <li>When over coating Davco<sup>®</sup> SL 828 always ensure the moisture content has achieved the required value for the coating product, as the waiting time will vary with the application thickness and ambient humidity.(Refe to the top coat product data sheet)</li> </ul>				
Applied Product Ready for Use	At +20 °C and 50	% r.h.			
	Foot traffic		3 hours		
	Lightly serviceab Lightly serviceab		24 hours		
	<u>Lightly serviceable</u> ~ 7 days Note: Times are approximate and will be affected by changing substrate and ambient conditions, particularly the temperature and relative humid- ity.				
SYSTEM INFORMATION					
System Structure	• •	crete surface: Sikafloor			

high porous concrete surface : Sikadur<sup>®</sup>-732

Leveling: Davco<sup>®</sup> SL 828

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## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## USES

- Very absorbent substrates must be saturated with water or primed to prevent loss of the mixing water into the substrate and which can cause problems such as shrinkage, the appearance of surface pores or weak and dusty surfaces etc.
- Do not mix with other cements or cement based screeds.
- Freshly applied Davco<sup>®</sup> SL 828 must be protected from damp, condensation and water for at least 24 hours.
- Do not exceed the recommended water dosage.
- Do not add more water when the product is starting to set.
- Do not exceed the recommended thicknesses.
- Temperatures below +20 °C and high ambient relative humidity extend the drying times.
- Not suitable for slopes or inclines > 1.0 %.
- Protect from direct sunlight, hot or strong winds and extremes of temperature just after application, to avoid cracking or crazing.
- When overcoating additional mechanical preparation may be required to remove any cement laitance which may have formed during application.
- Do not apply Davco<sup>®</sup> SL 828 over gypsum-based floors or, similarly, dimensionally unstable substrates.
- Davco<sup>®</sup> SL 828 does not provide an aesthetic finish and is intended to receive a covering.
- Avoid walking on the underlayment for at least 3 hours.
- Do not expose to rolling, dynamic loads for 7 days at +20 °C/50 % R.H.
- For interior use only.

# ECOLOGY, HEALTH AND SAFETY

#### EQUIPMENT

Use an electric stirrer (< 600 rpm).

#### SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate must be sound and of sufficient compressive strength (min. 25N/mm<sup>2</sup>) with a minimum pull off strength of 1.5N/mm<sup>2</sup>.
- The surface must be clean, dry and free of all contaminants e.g. dirt, oils, grease, coating and surface treatment etc.
- If in doubt apply a test area first.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids must be carried out using Sika<sup>®</sup> MonoTop<sup>®</sup>, Sikafloor<sup>®</sup>, SikaDur<sup>®</sup> and Sikagard<sup>®</sup> range of materials.

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 All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

#### MIXING

- Pour 5.5L of cool, potable water into a suitably sized and clean mixing container, using a calibrated measuring jug, or similar, to ensure strict control of the water content (avoid over-watering).
- Cool water 21°C serves to maximize the working time; if available water is not at this temperature, then consideration should be given to cooling the water.
- Add Davco<sup>®</sup> SL 828 to the water, while slowly mixing with a low speed electric mixer (< 600 rpm), adding the complete contents of the 25kg bag.
- Once all the powder has been added, continue mixing until a lump-free and uniform consistency is achieved. This should typically take no less than 3 minutes. But do not over-mix or allow the paddle to rise above the level of material as this will introduce and entrap air into the mix, potentially shortening the working life or causing pin-holing in the underlayment.
- Let the mixed material stand until the majority of air bubbles have dispersed.
- When pump-mixing, employ the 5.5L to 25kg water to powder ratio within a continuous mixer and pump, or a batch mixer and pump, ensuring that the mechanical mixers and pumps are in sound working order.
- Pre-clean and test the equipment, checking that the mixing and pumping elements are fully functional and that meshes are in place to prevent foreign matter from entering the hopper or being dispensed onto the floor.
- Mix thoroughly for a minimum of 3 minutes.
- After mixture, please test the flow first, if the flow is too high or lower than specification, please reduce or increase water dosage.

### APPLICATION

Prior to placing the underlayment, ensure that all sources of premature drying or direct sunlight are blocked off to avoid accelerated curing and reduced physical properties. The stated ambient and substrate application temperatures are to be achieved before installation and should be maintained for a period of at least 3 days thereafter.

#### Pump:

- Use a conventional floor screed continuous or dual stage mixer and pump and control the water dosage to achieve the required flow, measuring the final average flow diameter on a flat, clean, dry horizontal surface.
- Cylinder according to JC/T 985-2005
- Internal diameter: 30 mm
   Height: 50 mm
- Flow =140mm ± 10mm (5.5 L water per 25 kg)
- After placing onto the surface, apply by trowel or pin screed rake to the required thickness.
- The use of a spiked roller is recommended for improved surface homogeneity.
- Roll thoroughly with a spiked roller in two directions to remove any entrapped air, but do so quickly and



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just after it has been applied and move on.

- Do not over-roll!
   Manual:
- Pour the mixed material onto the prepared surface and apply by trowel or pin screed rake to the reguired thickness.
- Roll thoroughly with a spiked roller in two directions to remove any entrapped air.

#### **CLEANING OF TOOLS**

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

### **LEGAL NOTES**

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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