### Product Data Sheet Edition 19/03/2009 Identification no: 01 08 01 04 001 0 000005 Sikafloor®-21N PurCem®

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EN 13813 EN 1504-2 07 09

0086 - CPD - 541325

## Sikafloor®-21N PurCem®

VOC free

Easily maintained

but will not crack or debond.

Medium to heavy duty self-smoothing polyurethane screed

Product Description	Sikafloor <sup>®</sup> -21N PurCem <sup>®</sup> is a three part, water dispersed medium to high strength coloured polyurethane modified, cement and aggregate screed with self-smoothing properties.
	It has an aesthetic, easy to clean, smooth textured aggregate surface providing medium slip resistance and is typically installed at 4.5 to 6 mm thick.
Uses	In areas of medium to heavy loading, abrasion and high chemical exposure, to provide a smooth, flat and decorative wearing surface, such as in:
	<ul> <li>Food processing plants, in wet or dry process areas, freezers and coolers, thermal shock areas</li> </ul>
	<ul><li>Chemical plants</li></ul>
	Laboratories
	Workshops
Characteristics / Advantages	<ul> <li>Excellent chemical resistance. Resists a wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Please refer to the Chemical Resistance Chart or consult your local Technical Dept.</li> </ul>
	■ Similar coefficient of thermal expansion to concrete, allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -40°C (-40°F) up to +120°C (239°F)
	Bond strength in excess of the tensile strength of concrete. Concrete will fail first
	Non taint, odourless

High mechanical resistance. Behaves plastically subject to impact. Will deform

It is possible to apply on to 7 to 10 day old concrete after adequate preparation

Jointless. Extra expansion joints are not necessary; simply maintain and extend existing expansion joints up through the Sikafloor<sup>®</sup>-PurCem<sup>®</sup> flooring system

High abrasion resistance resulting from its silica aggregate structure

and with a tensile bond strength in excess of 1.5 MPa (218 psi)



### **Tests**

### Approval / Standards

Conforms to the requirements of EN 13813: 2002 as CT - C50 - F10 - AR0.5

Concerning contact with foodstuffs, it conforms to the requirements of:

- EN1186, EN 13130, and prCEN/TS 14234 standards, and the Decree on Consumer Goods, representing the conversion of directives 89/109/EEC, 90/128/EEC and 2002/72/EC for contact with food stuffs, according to test report by ISEGA, Registered № 24549 U 07, dated May 18<sup>th</sup>, 2007.
- USDA. Acceptance for use in food plants in the US
- Canadian Food Inspection Agency acceptance for use in food plants in Canada.
- British Standards Specifications (BSS) acceptance for use in the UK.
   Campden and Chorleywood Food Research Association, Ref. S/REP/98152/5, dated March 30<sup>th</sup>, 2007

Test reports from Warrington Fire Research Centre for Sikafloor  $^{\!0}$ -21N PurCem  $^{\!0}$ : WFRC No. 163875, dated  $7^{th}$  of July, 2008 (BS EN ISO 11925-2:2002) and WFRC No. 163878, dated  $7^{th}$  of July, 2008 (BS EN ISO 9239-1:2002) for Fire rating

Fire classification report according to EN 13501-1 from Warrington Fire Research Centre for Sikafloor<sup>®</sup>-21N PurCem<sup>®</sup>: WFRC No.174952, dated 11<sup>th</sup> of July, 2008

Capillary absorption and permeability to water report from Taylor Woodrow Construction, Ref. 11070, dated Nov. 28<sup>th</sup>, 2008

All other values indicated are internal test results.

### **Product Data**

Coefficient

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Form			
Appearance / Colours	Part A: Part B: Part C:	coloured liquid brown liquid natural grey powder	
	Available colours (all are approximate: Beige (~ RAL 1001), Maize yellow (~ RAL 1006), Oxide red (~ RAL 3009), Sky blue (~ RAL 5015), Grass green (~ RAL 6010), Dusty grey (~ RAL 7037), Agate grey (~ RAL 7038), Telegrey2 (~ RAL 7046).		
Packaging	Part A+B+C:	20.0 kg ready to mix units	
	Part A: Part B: Part C:	3.22 kg plastic drum 2.78 kg plastic jerrycan 14.00 kg plastic lined, double	paper bags
Storage			
Storage Conditions / Shelf-Life	If stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +10°C and +25°C.		
	Parts A and B: 12 months from date of production. Must be protected from frost.		
	Part C: 6 months from date of production. Must be protected from humidity.		
Technical Data			
Chemical Base	Part A: Part B:	Water borne polyol isocyanate	
	Part C:	Aggregates, cement and activ	ve fillers
Density	Part A: Part B: Part C:	~ 1.07 kg/l (at +20 ℃) ~ 1.24 kg/l (at +20 ℃) ~ 1.48 kg/l (at +20 ℃)	& (ASTM C 905)
	Part A+B+C n	nixed: $\sim 1.93 \text{ kg/l} \pm 0.03$ (at	+20°C)
Capillary Absorption	Permeability t Class Low	o water: 0.016 kg /m <sup>2</sup> h <sup>0.5</sup>	(EN 1062-3)
Layer Thickness	4.5 mm min. /	6 mm max.	
Thermal Expansion	$\alpha \approx 1.5 \times 10^{-5}$	per ℃ (A	ASTM E 381, ASTM D-696, ISO 11359)

(temperature range: -20 °C to +60 °C)

Water Absorption	0.18%		(ASTM C 413)
Permeability	To Water Vapour: 0.115 g/h/m <sup>2</sup> (4.8 mm)		(ASTM E-96)
Fire Rating	Class B <sub>(fl)</sub> S1	(BS EN 13501-1)	
Service Temperature	The product is suitable for use when exposed to continuous temperatures, wet or dry, of up to +120 °C.		
	The minimum service temper	erature is -40ºC.	
Mechanical / Physical Properties			
Compressive Strength	> 44 MPa after 28 days at +	-23℃ / 50% r.h.	(ASTM C 579)
	> 50 N/mm <sup>2</sup> after 28 days a	t +23℃ / 50% r.h.	(BS EN 13892-2)
Flexural Strength	> 14.7 MPa after 28 days at	t +23℃ / 50% r.h.	(ASTM C 580)
	>10 N/mm <sup>2</sup> after 28 days at	+23℃ / 50% r.h.	(BS EN 13892-2)
Tensile Strength	> 6.5 N/mm <sup>2</sup> after 28 days a	at +23℃ / 50% r.h.	(ASTM C 307)
Bond Strength	> 1.75 N/mm <sup>2</sup> (failure in cor	ncrete)	(EN 1542)
	(1.5 N/mm <sup>2</sup> is the minimum pull	off strength of the recommende	ed concrete substrate)
Shore D Hardness	80 - 85		(ASTM D 2240)
Flexural Modulus	3500 MPa		(ASTM C 580)
Coefficient of Friction	Steel: 0.3 Rubber: 0.5		(ASTM D 1894-61T)
Slip Resistance	Slip Resistance Values		(BS 8204 Part 2)
	Substrate	SRV Dry	SRV Wet
	Sikafloor®-21N PurCem®	70	60
	TRRL Pendulum, Rapra 4S	Slider	
Abrasion Resistance	Class "Special" Severe abrasion resistance AR 0.5 (Less than 0.05 mm wear depth)		(BS 8204 Part 2) (EN 13892-4)
	2360 mg Taber Abrader H-22 wheel / 1000 gr / 1000 cycles		(ASTM D 4060-01)
Indentation	≈ 0%		(MIL - PFR 24613)
Impact Resistance	Class A (BS 8204 Part 1) (Less than 1 mm indentation depth)		(BS 8204 Part 1)
	2 pounds / 30 inches (3 mm	thick)	(ASTM D 2794)
Dociotanos			
Resistance	Desistant to many about a	la Diagna and fau and staile d	
Chemical Resistance	Resistant to many chemicals. Please ask for a detailed chemical resistance chart.		
Thermal Resistance	The product is not designed to withstand thermal shock. Hot steam cleaning is not recommended. Use Sikafloor®-20N PurCem®.		
	Sikafloor® -21N PurCem can be subject to thermal shock up to 70°C at 6 mm.		
Resistance to Thermal Shock	Pass (ASTM C 884)		
Softening Point	130°C (266°F)		

### **System** Information

### **System Structure**

Use the products mentioned below as indicated in their respective Product Data Sheets.

Substrate Priming Systems

Substrate priming is normally not required under typical circumstances. (See Substrate Quality). When necessary use the systems indicated below.

System 1: moisture control on green concrete:

Primer:

Sikafloor®-155W N

and Temporary Moisture barrier (TMB): Sikafloor<sup>®</sup>-81 EpoCem<sup>®</sup> or Sikafloor<sup>®</sup>-82 EpoCem<sup>®</sup> Layer thickness: from 2 to 3 mm or 3 to 7 mm respectively, and then apply System 3.

System 2: Inadequate substrate and moisture content between 4% and 6%

Primers:

Sikafloor®-155W N

fully blinded with quartz sand  $0.4-0.7\ \text{mm}$  for the subsequent application of Sikafloor®-20N PurCem®.

System 3: Inadequate substrate and moisture content below 4%

Sikafloor<sup>®</sup>-155W N or Sikafloor<sup>®</sup>-156 or Sikafloor<sup>®</sup>-161 or Sikafloor<sup>®</sup>-159 for faster curing any of which must be fully blinded with guartz sand 0.4 - 0.7 mm for the subsequent application of Sikafloor®-20N PurCem®.

On porous excessively absorbent substrates use Sikafloor®-155W N, in two coats, the first thinned with 10% water and the second broadcast to refusal.

Heavy duty screed

Layer thickness:

6 - 9 mm

Screed:

Sikafloor®-20N PurCem®

Medium to heavy duty screed:

Layer thickness:

4.5 – 6 mm (including scratch coat)

Priming for Sikafloor®-21N PurCem®:

Epoxy primer Sikafloor -156 / 161 lightly broadcast with quartz sand 0.4 -0.7 mm. or

Scratch coat:

A scratch coat 1.5 mm thick will seal the surface and fill irregularities and improve appearance of the final layer.

Standard screed: Sikafloor®-21N PurCem® or

High slip resistance screed:

Sikafloor®-22N PurCem® broadcast with quartz sand sealed with 2 coats of Sikafloor®-31N PurCem® depending on the desired texture. (See build up Slip Resistance in Sikafloor®-22N PurCem® PDS) Sikafloor®-22N PurCem® does not normally require any priming.

Coving and detailing and vertical applications:

Primer:

Sikafloor®- 155W N Primer or Sikafloor®-156 / -161 Reprime if no longer tacky.

Coving Mortar:

Sikafloor®-29N PurCem®

1 x Sikafloor®-31N PurCem®

#### Seal Coat:

- Base coat:
  - Sikafloor®-20N or Sikafloor®-21N or Sikafloor®-22 N or Sikafloor®-29N PurCem®
- Seal Coat:
  - 1 x Sikafloor®-31N PurCem®

Note: These system configurations must be fully complied with as described and may not be changed.

### **Application Details**

### Consumption / Dosage

For primers, see System Structure above and respective PDS)

Primer

Sikafloor<sup>®</sup>-155W N, Sikafloor<sup>®</sup> -156 or Sikafloor<sup>®</sup> -161  $\sim 0.3-0.5 \text{ kg/m}^2$  and lightly broadcast with quartz sand 0.4-0.7 mm, between  $1-1.5 \text{ kg/m}^2$  or Scratch coat:

Sikafloor<sup>®</sup>-21N PurCem<sup>®</sup> (part A+B+C) ~ 2.9 kg/m<sup>2</sup> for a 1.5 mm layer.

Self-smoothing screed 3 - 6 mm:

Sikafloor<sup>®</sup>-21N PurCem<sup>®</sup> (part A+B+C) ~ 1.9 kg/m<sup>2</sup>/ mm layer thickness.

This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

### **Substrate Quality**

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

The substrate must be clean, dry, or saturated surface dry (SSD) and free of all contaminants such as oil, grease, coatings and surface treatments, etc.

If in doubt, apply a test area first.

Substrate priming is normally not required under typical circumstances. However due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding pinholes and other aesthetic variations.

Sikafloor<sup>®</sup> PurCem<sup>®</sup> can be applied onto recent concrete over 7 to 10 days old or onto old damp concrete (SSD) without having to prime first, as long as the substrate fulfils the above requirements.

### **Substrate Preparation**

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface to achieve CSP 3-6 according to the International Concrete Repair Institute.

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 and surface levelling must be carried out using appropriate products from the Sikafloor<sup>®</sup>, SikaDur<sup>®</sup> and Sikagard<sup>®</sup> range of materials.

High spots can be removed by grinding.

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

Edge terminations.

All free edges and working day joints of Sikafloor®-20N / -21N / -22N and -29N PurCem®, whether at the perimeter, along gutters or at drains require extra anchorage to distribute mechanical and thermal stresses. This is best achieved by forming or cutting grooves in the concrete. Grooves must have a depth and width of twice the thickness of the Sikafloor®-PurCem®. Refer to the edge details provided in the Method Statement. If necessary, protect all free edges with mechanically attached metal strips. Never featheredge, always turn into an anchor groove.

Expansion joints.

Expansion joints must be provided in the substrates at the intersection of dissimilar materials. Isolate areas subject to thermal stresses, vibration movements or around load-bearing columns and at vessels sealing rings. Refer to the edge details provided in the Method Statement.

Application Conditions / Limitations			
Substrate Temperature	+10 °C min. / +30 °C max.		
Ambient Temperature	+10°C min. / +30°C max.		
Substrate Humidity	The substrate can be dry or dry or SSD).	damp with no free standing water (saturated surface	
	for the thin screeds (-21N, -2	according to ASTM D 4263 (Polyethylene sheet test) (2N) and the coating (-31N), additional tests must be we moisture content amount or vapour drive.	
	Refer to System Structure ar	nd options for substrate priming.	
Relative Air Humidity	85% max.		
Dew Point	Beware of condensation!		
	The substrate and uncured fl risk of condensation or bloom	loor must be at least 3°C above dew point to reduce the ning on the floor finish.	
Application Instructions			
Mixing	Part A: B: C = 1:0.86:4.3	5 (packaging size = 3.22 : 2.78 : 14) by weight	
Mixing Time	Material and ambient temper If necessary, condition the m	rature will affect the mixing process. laterials for best use to 15°C - 21°C.	
	low speed electric stirrer.	ely, make sure all pigment is uniformly distributed with a and then B and blend for 30 seconds.	
	Gradually add part C (aggregate) to the mixed resin parts over a period of 15 seconds. DON'T DUMP! Allow part C to blend for further 2 minutes minimum, to ensure complete mixing and a uniform moist mix is obtained. During the operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once (parts A+B+C)		
Mixing Tools	to ensure complete mixing. <b>Mix full units only.</b> Use a low speed electric stirrer (300 - 400 rpm) for mixing parts A and B.  For proportion of the marter mix use a part type revelving mixer.		
Application Method /	For preparation of the mortar mix use a pan type revolving mixer.  Prior to application, confirm substrate moisture content, r.h. and dew point.		
Tools	Prior to application, commissionate moisture content, r.n. and dew point.  Priming of concrete substrates is usually not required under typical circumstances.  (See Substrate Quality), but given the thinness and fluidity of Sikafloor -21N PurCemit is highly recommended.		
	Priming options  -Sikafloor <sup>®</sup> -155W N, Sikafloor <sup>®</sup> -156 or Sikafloor <sup>®</sup> -161 lightly broadcast with quartz sand 0.4 – 0.7 mm, or  - Scratch coat.  Mix and apply a scratch coat of Sikafloor <sup>®</sup> -21N PurCem <sup>®</sup> using steel trowels to spread the materials to approximately 1.5 mm thickness, (approximately 2.9 kg/m²). This application will seal the concrete surface, fill the surface irregularities including pock marks, non-moving control joints and cracks. Allow overnight cure (24 hours at +20°C) before application of the body coat.		
	Body coat. Pour the mixed Sikafloor®-21N PurCem® onto the substrate and work with a toothed trowel or pin screed to the desired thickness, achieving a flat surface. A straight edge trowel can also be used to smooth out the marks of the tooth trowel or instead of it. Take care to spread newly placed materials across the transition of previously applied mixes before the surface begins to set. Remove air with a spike roller immediately (less than two minutes after placing). Roller spikes must be at least three times longer than the product thickness applied.		
	Allow a minimum 14 hour cur	re period at 20ºC before light traffic.	
	Flow check	(ASTM C 230-90 / EN 1015-3)	
	Top internal diam: Bottom internal diam.: Height:	70 mm 100 mm 60 mm	
	Flow =	310 mm ± 10 mm	

### **Cleaning of Tools**

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

#### **Potlife**

Temperature	Time
+10℃	~ 40 - 45 minutes
+20℃	~ 20 - 25minutes
+30℃	~ 10 - 15 minutes

## Waiting Time / Overcoating

If you have primed, before applying Sikafloor®-21N PurCem® on Sikafloor®-155W N or -156 or -157 (broadcast with quartz sand) allow:

	Waiting time	
Substrate temperature	Minimum	Maximum
+10℃	24 hours	12 days
+20℃	12 hours	7 days
+30℃	6 hours	4 days

Always make sure primer is fully cured before application.

For application of the body coat of Sikafloor<sup>®</sup>-21N PurCem<sup>®</sup> over the scratch coat allow:

	Waiting time	
Substrate temperature	Minimum	Maximum
+10℃	24 hours	72 hours
+20℃	24 hours	48 hours
+30℃	12 hours	24 hours

Note: Times are approximate and will be affected be changing ambient and substrate conditions, particularly temperature and relative humidity.

### Notes on Application / Limitations

Construction joints require pre-treatment with a stripe coat to verify and seal loss of material through the joint.

It is advisable to perform a groove along the perimeter of the application area particularly if there are columns or gullies in the floor surface, as indicated in the application details of the Method Statement for Application, to prevent curling during curing. Large areas do not require perimeter groove. Width and depth must be twice the thickness of the floor finish.

Do not featheredge,

Do not apply to PCC (polymer modified cement mortars) that may expand due to moisture when sealed with an impervious resin.

Do not apply to water soaked, glistening wet concrete substrates.

Do not apply to porous surfaces where significant moisture vapour transmission (outgassing) will occur during application.

Sika® Thinner C is flammable. NO NAKED FLAMES.

Always ensure good ventilation when using Sikafloor®-21N PurCem® in a confined space, to prevent excessive ambient humidity.

Sikafloor<sup>®</sup>-21N PurCem<sup>®</sup> shares the resin (part A) and hardener (part B) with Sikafloor<sup>®</sup>-20N PurCem<sup>®</sup>. Make sure the correct pack sizes of aggregate are used.

After application, Sikafloor®-21N PurCem® must be protected from damp, condensation and direct water contact (rain) for 24 hours.

Hot steam cleaning may lead to delamination due to thermal shock.

For consistent results it is advised to always use the scratch coat prior to placing Sikafloor®-21N PurCem® on any substrate.

Do not apply below  $+9^{\circ}\text{C}$  or above  $+31^{\circ}\text{C}$  or a maximum relative humidity above 85%.

Do not apply to un-reinforced sand cement screeds, asphaltic or bituminous substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminium, soft wood or urethane composition, elastomeric membrane and fibre reinforced polyester (FRP) composites.

Do not apply to wet or green concrete or polymer modified patches if the moisture content is above 10%.

Do not apply to concrete if the air or substrate temperature is within  $+3^{\circ}$ C of the dew point.

Protect the substrate during application from condensation from pipes or any overhead leaks.

Do not mix Sikafloor<sup>®</sup>-PurCem<sup>®</sup> products by hand. Use only mechanical means.

Do not apply to cracked or unsound substrates.

Colour uniformity can not be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor®-PurCem® products to draw from inventory in batch number sequence. Do not mix batch numbers in a single floor area.

Always allow a minimum of 48 hours after product application prior to placing into service in proximity with food stuffs.

Products of the Sikafloor® -PurCem® product range are subject to yellowing when exposed to UV radiation. There are no measurable losses of other properties when this occurs and it is a purely aesthetical matter. Products can be used outside provided the change in appearance is acceptable by the customer.

### **Curing Details**

## Applied Product ready for use

Substrate temperature	Foot traffic	Light traffic	Full cure
+10℃	~ 20 hours	~ 34 hours	~ 7 days
+20℃	~ 12 hours	~ 16 hours	~ 4 days
+30℃	~ 8 hours	~ 14 hours	~ 3 - 4 days

Note: Times are approximate and will be affected by changing ambient and substrate conditions.

## Cleaning / Maintenance

### Methods

To maintain the appearance of the floor after application, Sikafloor<sup>®</sup> -21N PurCem<sup>®</sup> must have all spillages removed immediately and must be regularly cleaned using rotary brushes, mechanical scrubbers, scrubber dryers, high pressure washers, wash and vacuum techniques, etc., using suitable detergents and waxes.

### **Value Base**

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.

### **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.

# Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

### **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.

### **CE Labelling**

The harmonized European Standard EN 13 813 "Screed material and floor screeds - Screed materials - Properties and requirements" specifies requirements for screed materials for use in floor construction internally.

Structural screeds or coatings, i.e. those that contribute to the load bearing capacity of the structure, are excluded from this standard.

Resin floor systems as well as cementitious screeds fall under this specification. They have to be CE-labelled as per Annex ZA. 3, Tables ZA. 1.1 or 1.5 and Z.A. 3.3 and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

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(6	
Sika Limited Watchmead Welwyn Garden City	
Herts. AL7 1BQ England	
07 1)	
EN 13813 CT - C50 - F10 - AR0.5	
Cementitious screed material for indoors in buildings (systems as per Product Data Sheet)	S
Reaction to fire:	B <sub>(fl)</sub>
Release of corrosive substances (Cementitious Screed):	СТ
Water permeability:	NPD <sup>2)</sup>
Water vapour permeability	NPD
Compressive strength	C50
Flexural strength	F10
Abrasion:	AR0.5
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

<sup>1)</sup> Last two digits of the year in which the marking was affixed.

### EU Regulation 2004/42

VOC - Decopaint Directive

According to the EU-Directive 2004/42, the maximum allowed content of VOC Product category IIA /  $\bf j$  type  $\bf wb$ ) is140 / 140 g/l (Limits 2007 / 2010), for the ready to use product.

Sikafloor®-21N PurCem, is VOC free for the ready to use product.

<sup>2)</sup> No performance determined

The harmonized European Standard EN 1504-2 "Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2 : Surface protection systems for concrete" gives specifications for products and systems based on methods "hydrophobic impregnation", "impregnation" and "coating" for the various principles presented under EN 1504-9.

Products which fall under this specification have to be CE-labelled as per Annex ZA. 1, Tables ZA1a to ZA 1g according to the scope and relevant clauses there indicated, and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

For flooring systems not dedicated to protect or reinstate the integrity of a concrete structure, EN 13813 applies. Products acc. EN 1504-2 used as flooring systems with mechanical loads also must fulfil EN 13813.

Here below indicated are the performance classes achieve according to the standard. For the specific performance results of the product to the particular tests, please see the actual values above in the PDS.

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0086	
Sika Limite Watchmea Welwyn Garder Herts. AL7 1BQ E	d n City
09 1)	
0086 CPD - 541325	
EN 1504-2	
Surface Protection Systems for Con Physical Resistance / Chemical Resista	
Abrasion resistance	Class AR 0.5
Capillary absorption and permeability to water	w < 0,1 kg/m <sup>2</sup> · h <sup>0,5</sup>
Resistance to severe chemical attack	Class 2
Impact resistance	Class III: ≥ 20Nm
Adhesion strength by pull-off test	≥ 2.00 N/mm2
Reaction to fire	B <sub>fl</sub> S1

<sup>1)</sup> Last two digits of the year in which the marking was affixed.



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Sikafloor®-21 N PurCem®



No performance determined

<sup>3)</sup> Tested as part of a full system