

SIKAFLOOR -PURCEM SYSTEM vs. COMPETITION (PU CEM SCREED /PU CONCRETE SCREED)

Argument	Competition Argument (general)	Competition Argument against Sikafloor - PurCem	SIKA Answer
Temperature Resistance	Our product softening point +130 °C. Can withstand spillages up to +150 °C.	PurCem highest recommended service temperature is recommended to be +140 °C.	<p>New PurCem formulations (resin parts) softening point is +180 °C. However in typical service environments (food industry) this has little relevance. Normally temperatures do not go so high. Anyway Sikafloor -20 PurCem softening point is extremely high.</p> <p>Remark: When looked upon durability and cleanability of the floor, more relevant is the resistance against liquids and chemicals in elevated temperatures than extreme service temperatures.</p>
Thermal Shock Resistance	At 9 mm thickness mortar like products withstand hot steam cleaning and thermal shocks till +120 C. In 12 mm layer thickness shocks up to +130 C and occasionally +150 C.	Sika uses EP primer else PurCem scratch coat. If the exposure of +100 C liquid on the floor lasts long, EP's glass transition (Tg) point can be reached. This may lead in long term use for delamination.	In <u>theory</u> this might be true. However, in <u>reality</u> this scenario is hardly feasible. Anyway with Sikafloor -20/21 PurCem primer is not needed. 9 mm Sikafloor -20/21 PurCem withstands thermal shock and full steam cleaning till +120 C.

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Chemical Resistance	Refer chemical chart. The product is resistant to all common chemicals and detergents used in its service industries.	Sikafloor -20 PurCem chemical resistant chart is not complete and chemicals are not tested with higher temperatures. Our systems have been tested with most chemicals appeared in main service environments. We have years of experience of our product and these environments.	Some true as referred chemical resistance charts. However many of the main competitors arguments are based on their on their own tests and the chemical resistance chart has been done internally. Sikafloor -20/21 PurCem has also chemical resistant chart with aggressive chemicals. The tests have been done according to recognized, accepted and approved external test laboratories and methods. PurCem has been tested acc. EN 1504-9 against chemical attack.
Wear Resistance and Abrasion	Our product has an outstanding abrasion resistance.	According to test reports Sikafloor -20/21 PurCem shows lower abrasion resistance.	Refer test report EN 13892-4 Sikafloor -20/21 PurCem reach AR 0.5 (Special Severe Abrasion resistance). Remark. With screed materials (often hand applied), the different texture of the floor surface has big influence in results of abrasion resistance. The results are not always 1:1 comparable.
Impact Resistance	Excellent impact resistance. The product has some ductility against impacts and it does not show same cracking under impacts as hard materials (tiles etc..).	According to TDS PurCem has lower compressive, flexural and tensile strength which leads to lower energy absorption capacity.	Sikafloor -20/21 PurCem has excellent impact resistance. Under impacts it behaves plastically and does not crack. Compressive, flexural and tensile strength are mechanical values. The impact resistance of Sikafloor - 20/21 PurCem can be proved by test reports.

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Water Absorption	0 ml or 0 %.	In some TDS's is stated that Sikafloor -22 PurCem water absorption is 0.22% (ASTM).	The test methods are not the same. With other method PurCem also would reach 0 or vice versa. In reality ALL materials containing cement (e.g. PU CEM) have some "pores" on the surface, ie. these floors absorb some water. However, the figure 0,22% is so low, that it has not any practical relevance concerning e.g. hygienic.
Application Temperature and Working Time	Can be applied at +5 °C...+30 °C. Continue to cure down till 0 °C. Recommendation above +10 C. Working time max appr. 10 min after mixing.	Temperature +10 C ... +40 C. Working time at +20 °C appr. 22...25 min.	Sikafloor -20/21 PurCem is applicator friendly. Working time is longer than main competitors, brings more flexibility in application. The product also can be applied in a bit higher temperatures. Sikafloor -20/21 PurCem can also be applied in lower temperatures than +10 °C and it cures. However it must be noticed that the application becomes more difficult and the curing time will be longer.
Curing Time / Ready to be Taken into Service	Floor be taken into full service within 24 hours (at +8 C) after the application. Full traffic and chemical resistance in 48 hours (+15 °C...+ 25 °C)	Sikafloor -20/21 PurCem at +10 °C curing time: for foot traffic after 24 hours, Light traffic 36 hours, full cure 7 days. In TDS is told to be avoided scrubbing with water for the first three days.	Sikafloor -20/21 PurCem can be taken into service (mechanical strength) in 24 hours at 20 °C. In addition, Sikafloor -20 PurCem has ISEGA "food contact suitability" report which states that the floor can be taken into service 48 hours after application. This report competition does not have.



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Primer	In principle, our system does not need a primer. However, in order to get better workability primer is recommended. Primer has the same resin composition as the screed.	Sika is using an EP based primer which “softens” as the glass transition point of the EP has been reached. Primer needs to be broadcasted.	<p>Look at the softening issue in point “Thermal Shock Resistance”.</p> <p>With Sikafloor -20/21 PurCem the primer is not needed. Primer can be to be used, if the concrete is weak. EP primer strengthens the substrate. PU CEM based primer has not this function, it seals the substrate and makes the application easier, it does not strengthen the substrate.</p> <p>Remark. If the substrate is weak, the best and recommended way is to make a new concrete screed or slab, in order to secure a problem free floor.</p>
Moisture in the substrate	On new concrete the product can be applied as soon as the adequate strength has been reached (in practice 5-7 days) for preparation of the concrete. Old concrete can be “wet” but the surface free of ponding water.	Normally EP based primers need dry concrete surface (ie. concrete 28 days curing time).	PurCem can be applied on a new concrete slab as soon as the adequate strength for substrate preparation has been reached (in practice 5-10 days).



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Colours and Colour Stabilibility	Our systems are resistant against UV light but are not UV light stable.	Our product is also yellowing under UV light, but keeps better colour than Sikafloor -20 PurCem.	Not tested and has actually no relevance. Both are functional floors. In reality, all PU CEM based systems have poor stability under UV light, but have high UV light resistance (mechanical).
Application	Application done only by our trained and approved and experienced applicators.	Sika applicators do not have such experience as our applicators.	Sikafloor -20/21 PurCem is applied and installed only by Sika trained, approved and experienced applicators. They meet Sika standards.
Tests reports	We have dozens of independent test reports around the world for technical proof and proof that it can be used in its service industries.		Sikafloor -20 PurCem has number of test reports. Many of them have been done by independent, approved laboratories. Remark. Sikafloor -20/21 PurCem has above others, EN 1504-9 CE Conformity certification and ISEGA test report for "food contact".
References and History	The original one, which has decades of experience and millions of m2 references. The product is produced in few/one production facility. We can guarantee the quality of the product.	Sikafloor -20 PurCem is a copy, which has much shorter history. Sika had number of PurCem "products" and has many production plants. The quality cannot be guaranteed always to be the same.	True, PurCem is not the "oldest" in the market. However PurCem is also not a new product and there are lot of references within over years all over the world, with multinational blue chip corporations as well as small family owned private companies. This can be proved. We need to remember that the products/formulations are not same, they are



			<p>similar. Sika is developing the products continuously. Our test reports and the references prove the performance.</p> <p>Remark. Sika is the world's leading construction chemical company with over 100 year experience and high quality standards. With PurCem products we meet the same standards.</p>
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Thanks & Regards

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