BUILDING TRUST

SUPPLEMENTARY TECHNICAL PRODUCT INFOMRATION

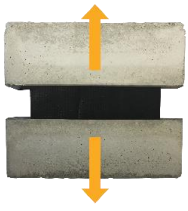
Chemical resistance of Sikaflex® PRO-3 Purform

This document provides information about the chemical resistance of Sikaflex® PRO-3 Purform against different chemicals.

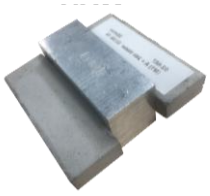
1 INTRUDUCTION

Sikaflex PRO-3 Purform is frequently and successfully used in floor joints where often chemical resistance is required. Therefore, the chemical resistance against several chemicals is tested according to EN 14187-6. These tests are carried out with fully immersed H test specimen. That means 4 site immersions where in practice we have only have one site immersion. This is a worst-case scenario which guaranties that the sealant will be tight for the period and no contamination of the soil or ground water can occur.

Full immersion in test liquid



Elongation after immersion



24 hours maintained elongation

2 CHEMICAL RESISTANCE OVERVIEW

Sikaflex PRO-3 Purform chemical resistance according to EN 14187-6

Exposure time 8h +72 h after storage B change of modulus

CHEMICAL RESISTANCE

Acids	**8 h**	**72 h**
Hydrochloric acid 5%	**+++**	**++**
Nitric acid 10%	**+++**	**++**
Sulphonic acid 10%	**+++**	**-**
Acetic acid 5%	**+++**	**-**
Lactic acid 20%	**+**	**-**
Citric acid 50%	**+**	**-**

Hydrocarbons	**8 h**	**72 h**
Super gasoline	**+++**	**+**
Diesel	**+++**	**+++**
Kerosene	**+++**	**+**
Xylene 100%	**+**	**-**
Engine oil 100%	**+++**	**++**
Sunflower oil	**+++**	**+++**
Vegetable oil	**++**	**(+)**

Alcohols	**8 h**	**72 h**
Ethylene glycol 100%	**+++**	**++**
Ethanol 100%	**+**	**-**
Methanol 100%	**-**	**-**
Glycerin 100%	**+**	**+**

Ketones	**8 h**	**72 h**
Acetone 100%	**-**	**-**
Methylethylketone 100%	**-**	**-**

Alkaline	**8 h**	**72 h**
Potassium Hydroxide 20%	**+++**	**+++**
Sodium hydroxide 10%	**+++**	**+++**
Ammoniac 25%	**+++**	**++**
Calcium hydroxide (saturated)	**+++**	**+++**

Others	8 h	72 h
Sodium hypochlorite 12%	+++	+++
Hydrogen peroxide 3%	+++	++
Tenside PF 14 DIBT	+++	+++
Water distilled 100%	+++	+++
Sea Water	+++	+++

+	neither adhesive nor cohesive failure (Requirement according to EN 14187-6:2017-07
++	neither adhesive nor cohesive failure and change of modulus <50 % after immersion in test liquid
+++	neither adhesive nor cohesive failure change of modulus <20 % after immersion in test liquid (EN 14188-2:2014 draft)
-	adhesive or cohesive failure occurred.

Note:

pH is an indication of the amount of free H^+ ions in the aqueous solution. It gives no indication about the anionic counterpart like Cl^- (in case of hydrochloric acid) or CH4OH- (in case of lactic acid) in the aqueous solution. Corrosive to the sealant is both the H^+ (related to the pH) and the anion (related to the kind of acid or lye). Therefore, the pH is not the only relevant value to evaluate the chemical resistance.

3 TEST PROCEDURE

Title

EN 14187-6 Cold applied joint sealants — Part 6: Test method for the determination of the adhesion/cohesion properties after immersion in chemical liquids

Scope

This European Standard specifies a test method to determine the adhesion/cohesion properties after immersion in chemical liquid

EN 14187-6 with 100 % elongation

4 REFERENCES

Pos.	Report no: / Source	Title
1	SKZ Test rReport 208323/20	Chemical Resistance, DIN EN 14187-6, SKZ, Report No. 208323/20
2	00002-CTD-00983-ELa	Chemical resistance test of Sikaflex PRO-3 Purform

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