

TECHNICAL SERVICE REPORT

SELECT TIMBERS

Weathering climate adhesion test over Wood plates supplied by the customer. Adhesion of Sikaflex®290 DC PRO, Sikaflex®298, Sikaflex®295 UV, Sikaflex®591 over the Wood plates

Project Number:
00027-ES-00012-AS

Test-costs:
500 EUROS

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TEST:

Measurement of adhesion rate after different weathering cycles according our corporate quality procedure CQP 033-1, weathering cycles according our CQP 034-1, 4 steps (B, C, F, L) of above mentioned samples.

CONCLUSIONS

All tested products shows good adhesion after the diferent wearhering conditions. In fact resistance of the products are bigger than wood cohesion and when we tried to debond the product the wood shows certain tendency of delamination.

TESTED SAMPLES IMAGE



Sikaflex®290 DC PRO: When we pull out from the product it is possible to see that adhesion remain perfect but the wood delaminates when we cut off the bead of the adhesive



Sikaflex®591: When we pull out from the product it is possible to see that adhesion remain perfect but the wood delaminates when we cut off the bead of the adhesive



Sikaflex®298: When we pull out from the product it is possible to see that adhesion remain perfect but the wood delaminates when we cut off the bead of the adhesive



Sikaflex®295 UV: When we pull out from the product it is possible to see that adhesion remain perfect but the wood delaminates when we cut off the bead of the adhesive

TEST TYPE

CQP 033-1 - Bead adhesion test for elastic polyurethanes and hybrids
 CQP 034-1 - Conditions for accelerated ageing on test specimens

PRIMERS/ACTIVATORS

Sika® Primer 290 DC

ADHESIVES/SEALANTS

Sikaflex®-290 DC PRO

Sikaflex®-591

Sikaflex®-298

Sikaflex®-295 UV

SUBSTRATES

- Select Timbers Plates

Batch Number / Best before

3003282566 05/19

Batch Number/ Best before

3003112669 02/19

3003075819 01/19

3003193659 05/19

3003313809 05/19

NOTE: the samples are allowed to cure for a week at room temperature (23°C / 50% R.H.), then adhesion is checked (ageing, cycle B). Afterwards, samples are submitted to the next ageing cycle, checking the adhesion after the completion of each step of the cycle:

- (C) 7 days of wáter immersion at 23°C + 2h 23°C / 50% R.H. - DIN 50014
- (F) 1 day at 80°C
- (L) 7 days of cataplasma (70°C / 100% R.H.) + 2h 23°C / 50% R.H. - DIN 50014

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TEST RESULTS

Substrate: Select Timbers plates

Cleaning	t [min]	Primer	t [min]	Adhesive	Results			
					B	C	F	L
		Sika® Primer 290 DC	30	Sikaflex®-290 DC PRO	1*	1*	1*	1*
		Sika® Primer 290 DC	30	Sikaflex®-591	1*	1*	1*	1*
		Sika® Primer 290 DC	30	Sikaflex®-298	1*	1*	1*	1*
		Sika® Primer 290 DC	30	Sikaflex®-295 UV	1*	1*	1*	1*

*Wood peels off when we pull out the adhesive

Exposure Type

Notation	Exposure
B	7d KLR
C	7d WL + 2h KLR
F	1d 80°C
L	7d CP + 2h KLR

KLR = Exposure at 23°C/50%RH according to DIN 50014

WL = Water immersion at 23°C

CP = Exposure at 70°C/100%RH according to DIN 50014

xd = x day(s)

xh = x hour(s)

Assessment of the adhesion and further data:

Grade	Assessment	Bonding
1	Satisfactory bonding	> 95% cohesive failure
2	Basically satisfactory bonding	> 75% cohesive failure
3	Unsatisfactory bonding	> 25% cohesive failure
4	Unsatisfactory bonding	< 25% cohesive failure
L	Paint failure (paint peels off)	
P	Primer peels off from substrate	
BK	Bubbles in the adhesive	
T	Tunnel effect / perfect adhesion on edges	
K	Adhesive not curing in the bonding area	
FH	Rupture at the interface in contact with the substrate	
S	Appearance of small bubbles in the bonding area	
RA	Separation of the edges	

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