PRODUCT SELECTOR, CALCULATION TOOLS

Adhesives / sealants **APPLICATIONS**	Sikaflex®-290 DC PRO	Sikaflex®-291i	Sikaflex®-292i	Sikaflex®-295 UV	Sikaflex®-296	Sikaflex®-298	Sikasil® WS-605 S	Sika Firesil® Marine N	Sikasil® N-Plus	SikaTransfloor®-352 ST and SL
General sealing overpaintable	-	●●●	●●	-	-	-	-	-	-	-
General sealing, weathering resistant	-	-	-	●●●	●●	-	●●●	-	-	-
Fire retardent sealing	-	-	-	-	-	-	-	●●●	-	-
Organic glass bonding	-	-	-	●●●	●	-	-	-	-	-
Mineral glass bonding	-	-	-	-	●●●	-	-	-	-	-
Deck levelling	-	-	-	-	-	-	-	-	-	●●●
Wodden deck bonding	-	●●	-	-	-	●●●	-	-	-	-
Caulking	●●●	-	-	-	-	-	-	-	-	-
Bonding of coverings	-	●●	-	-	-	●●●	-	-	-	-
Sanitary sealing	-	●	-	-	-	-	-	-	●●●	-
SERVICE CONDITIONS										
High temperature > -40 °C to 150 °C	-	-	-	-	-	-	-	●●●	●●	-
Normal temperature -40 °C to 90 °C	-	●●●	●●●	●●●	●●●	●●●	●●●	-	-	●●●

See also Pre-Treatment Chart for Marine Applications

KEY TO SYMBOLS

●●●	Best solution
●●	Good solution
●	Possible solution

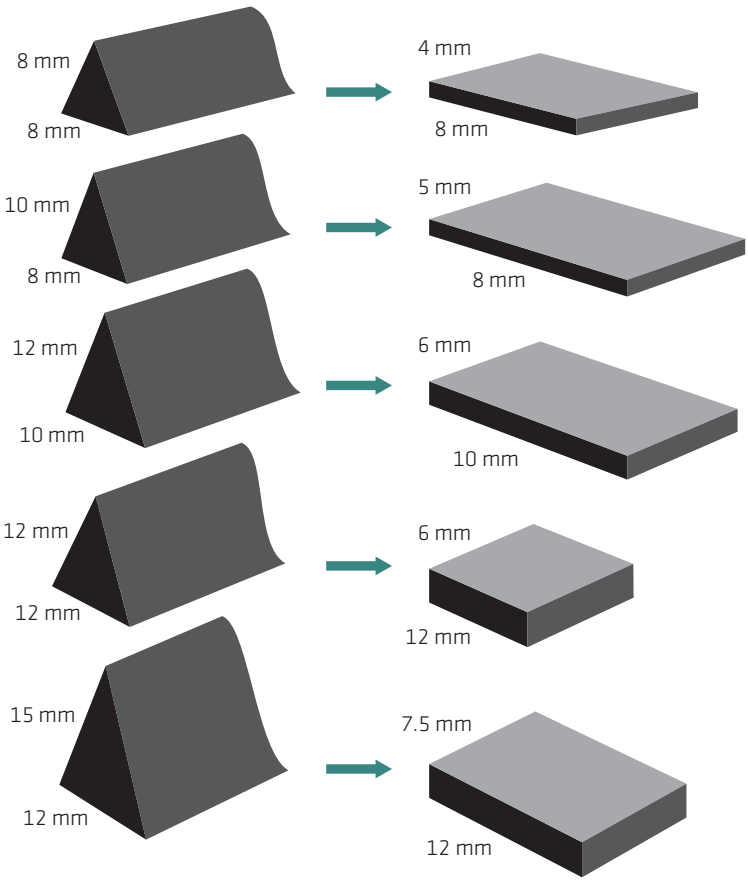
ADHESIVE PRIMER CONSUMPTION

DESIGN OF ADHESIVE LAYER GEOMETRY

The elastic adhesive can only fully develop its positive properties (movement compensation, peeling and impact resistance) if the adhesive layer geometry is correct.

Above all, this means keeping to a minimum layer thickness that must be individually suited to the bond. A layer thickness of 2-3 mm has proved best for most applications. Thicker layers may be required where considerable movement is expected.

Depths over 20 mm should be avoided with standard Sikaflex® grades because the adhesive would take too long to harden.



	NO. OF METRES PER 300 ML CARTRIDGE			NO. OF METRES PER 100 ML TUBE		
JOINT WIDTH	5	10	15	5	10	15
DEPTH / LAYER THICKNESS OF BOND (MM) 1	62.00	31.00	20.60	20.00	10.00	6.60
2	31.00	15.50	10.30	10.00	5.00	3.30
3	20.60	10.30	6.88	6.60	3.30	2.20
4	15.50	7.75	5.15	5.00	2.50	1.60
5	12.40	6.20	4.10	4.00	2.00	1.30
6	10.30	5.16	3.44	3.30	1.60	1.10
7	8.85	4.40	2.95	2.80	1.40	0.90
8	7.75	3.90	2.60	2.50	1.20	0.80
9	6.90	3.50	2.30	2.20	1.10	0.70
10	6.20	3.10	2.00	2.00	1.00	0.60

PRIMER AND CLEANER CONSUMPTION

PRODUCT	YIELD PER 100 ML AT 20 MM WIDTH (m)	BRUSH APPLICATION TISSUE APPLICATION* (l / m²)
Sika® Aktivator / Sika® Aktivator-205	25-30	0.04*
Sika® Primer-206 G+P	17-22	0.1-0.15
Sika® Primer-209 D	12-15	0.15-0.2
Sika® MultiPrimer Marine	12-15	0.15-0.2

Make sure that:

- The primed areas coincide with the bonding areas
- The right primer for the material surface is used
- The primer is completely dry and cured before bonding i.e. watch the evaporation time
- Primers are shaken if necessary

CONVERSIONS AND CALCULATIONS

FORMULAE

TO ESTIMATE THE NUMBER OF LITRES REQUIRED

Normal bead application;

$$\text{Quantity in litres} = \frac{\text{bead width (mm)} \times \text{bead thickness (mm)} \times \text{joint length (metres)}}{1000}$$

(Dimensions are for wet adhesive in rectangular cross section)

Large area bonding and laminating;

Quantity in litres = width (metres) x length (metres) x wet film adhesive thickness (mm).

TO DETERMINE THE VOLUME OF A SEMI-CIRCULAR BEAD

$$\text{Quantity in litres} = \frac{3.142 \times \text{diameter (mm)} \times \text{diameter (mm)} \times \text{length (metres)}}{8000}$$

TO DETERMINE THE VOLUME OF A TRIANGULAR BEAD

$$\text{Quantity in litres} = \frac{\text{width (mm)} \times \text{height (mm)} \times \text{length (metres)}}{2000}$$

TO CONVERT KILOGRAMS TO LITRES

$$\text{Quantity in litres} = \frac{\text{weight in kilograms}}{\text{density (grams / ml or kg / l)}}$$

TO CONVERT BETWEEN TEMPERATURE SCALES

$$\text{Fahrenheit} = \frac{(\text{degrees celsius (°C)} \times 5)}{9} - 32$$

$$\text{Celsius} = \frac{(\text{degrees fahrenheit (°F)} \times 9)}{5} + 32$$

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TEMPERATURE SCALES		
°C		°F
100		212
80		176
60		140
40		104
35		95
30		86
25		77
20		68
15		59
10		50
5		41
0		32

WEIGHT	
1 ounce =	28.3495 g
1 pound =	0.45359 kg
1 hundredweight =	50.8023 kg

AREA	
1 inch² =	645.16 mm²
1 foot² =	0.0929 m²
1 yard² =	0.8361 m²
1 acre =	4046.86 m²
1 mile² =	2.59 km²

VOLUME	
1 pint (UK) =	0.5683 l
1 pint (USA) =	0.4732 l
1 gallon (UK) =	4.5461 l
1 gallon (USA) =	3.7854 l

LENGTH	
1 inch =	25.4 mm
1 foot =	0.3048 m
1 yard =	0.9144 m
1 furlong =	201.17 m
1 mile =	1.6093 km

PRESSURE	
1 bar =	0.1 MPa
1 Pascal =	1 N / m²
1 kgf / cm² =	0.09807 MPa
1 psi =	6894.76 Pa

SI PREFIXES		
NAME	SYMBOL	FACTOR
giga	G	109
mega	M	106
kilo	k	103
hecto	h	102
deca	da	101
deci	d	10-1
centi	c	10-2
milli	m	10-3
micro	µ	10-6
nano	n	10-9