SWISSPEARL

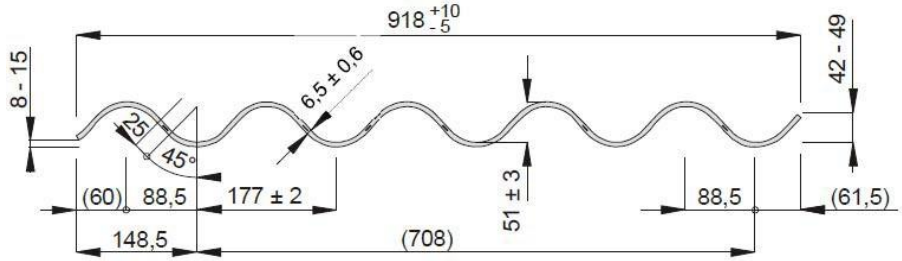
Swisspearl W177-5.5 RC
Swisspearl W177-6.5 RC

Data sheet - Corrugated sheets

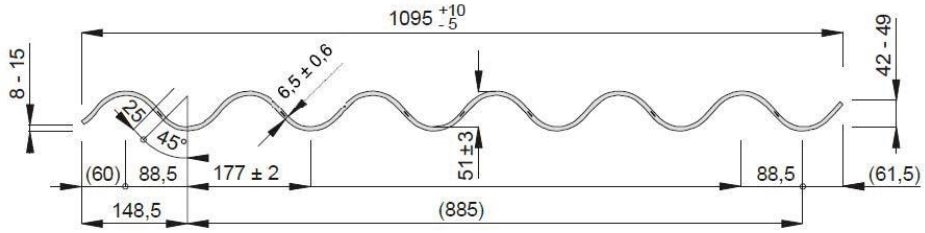
Swisspearl corrugated sheets are manufactured to the latest technological standards, making them the ideal roofing solution for large roof areas of agricultural and industrial buildings. The special properties of fibre cement, as a natural building material with a high fire protection classification, are particularly useful in these areas. Manufactured with Portland cement, combined with a mixture of high-quality synthetic and cellulose fibres as well as the use of strap inserts for fall protection, Swisspearl corrugated sheets meet the highest European requirements. Swisspearl corrugated sheets are available in different profiles, sizes and colours. Swisspearl corrugated sheets are complemented by a comprehensive range of accessories.

Dimensions		W177-5,5 RC	W177-6,5 RC
Number of corrugations		5,5	6,5
Sheet thickness	mm	6,5	6,5
Sheet width	mm	918	1095
Sheet length	mm	1250 1600 2000 2500	1250 1600 2000 2500

W177-5,5 RC



W177-6,5 RC



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Dimensional tolerances (DIN EN 494)			
Sheet thickness	mm	± 0,6	± 0,6
Sheet width	mm	+10, -5	+10, -5
Sheet length	mm	± 10	± 10
Pitch of corrugations	mm	± 2	± 2
Height of corrugation	mm	± 3	± 3
Squareness	mm	≤ 6	≤ 6

Physical characteristics			
Density, dry minimum (DIN EN 494)	Kg/m³	≥ 1400	≥ 1400
Density, dry average (DIN EN 494)	Kg/m³	1500	1500
Weight (incl. 10% humidity)*	Kg/m²	14.5	14.5

* Nominal value may vary depending on conditions

Mechanical properties (DIN EN 494)			
Breaking load, uncoated	kN/m	4.84	4.84
Breaking load, coated	kN/m	5.07	5.07
Deflection, uncoated	mm	4.1	4.1
Deflection, coated	mm	3.7	3.7
Bending moment, uncoated	Nm/m	76.0	76.0
Bending moment, coated	Nm/m	81.0	81.0
Impact resistance (EN 15057)		passed	passed
Heat-rain	visual	passed	passed
Resistance to warm water	R_L	R_L > 0.70	R_L > 0.70
Wet-dry	R_L	R_L > 0.70	R_L > 0.70
Resistance to frost	R_L	R_L > 0.70	R_L > 0.70

Thermal properties			
Thermal conductivity	W/m °C	0,4	0,4
Coefficient of thermal expansion	mm/m °C	0,01	0,01
Temperature (air) at use	°C	-20 - +50	-20 - +50

Hygrothermal properties			
Absorption of water	%	26	26
Water permeability (DIN EN 494)	visual	No Water Drops	No Water Drops

Calculation or rated value of the load resistance			
Longitudinal bending	MPa	6.3	6.3
Across bending	MPa	4.3	4.3

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Maximum rated value of the impacts q_d			
For bearing distances l ≤ 1150 mm	kN/m2	$q_d \leq 3.2$	$q_d \leq 3.2$
For bearing distances l ≤ 1450 mm	kN/m2	$q_d \leq 2.0$	$q_d \leq 2.0$

Reaction to fire			
Fire class, uncoated (EN 13501-1)	Rating	A1	A1
Fire class, coated (EN 13501-1)	Rating	A2-s1, d0	A2-s1, d0

Further properties			
Category, class (EN 494)		NT C1X	NT C1X

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