



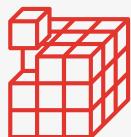
# TECHNICAL DATASHEET

DOCUMENTS

• TECHNICAL •

DETAILS

• PRESENTATION



Parts



Material



Certificates



## About Us

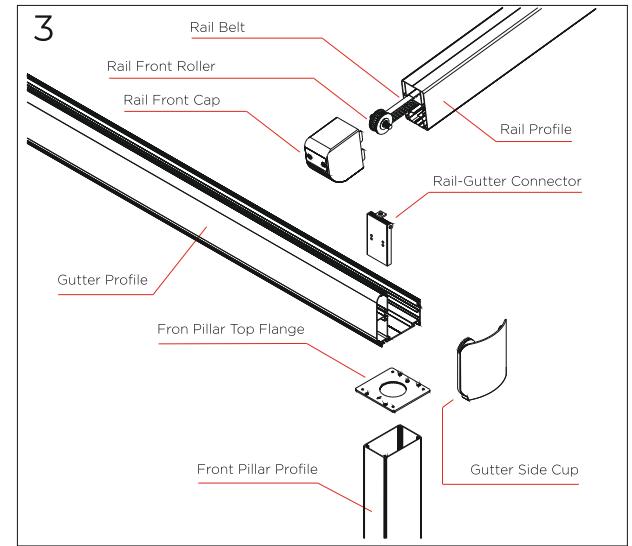
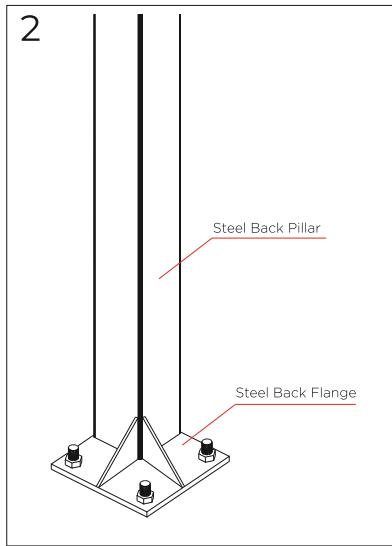
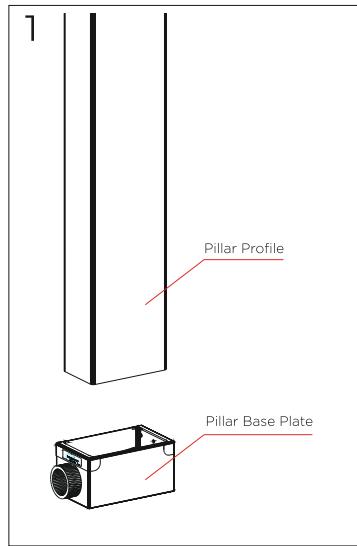
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Im Jahr 2008 wurde Konzept Terrasse von Geschäftsführer Ünal M. ins Leben gerufen. Unser Ziel ist es, unseren Kunden maßgeschneiderte und hochwertige Lösungen anzubieten, um ihr OutdoorErlebnis zu verbessern.

Unser Unternehmen betreibt eigene Produktionsstätten, um spezielle Lösungen gemäß den individuellen Bedürfnissen unserer Kunden zu entwickeln. Auf diese Weise können wir einen schnellen und effizienten Montageprozess sicherstellen. Wir sind bestrebt, unsere Produktionsprozesse kontinuierlich zu überprüfen und zu verbessern, um unsere Qualitätsstandards auf höchstem Niveau zu halten.

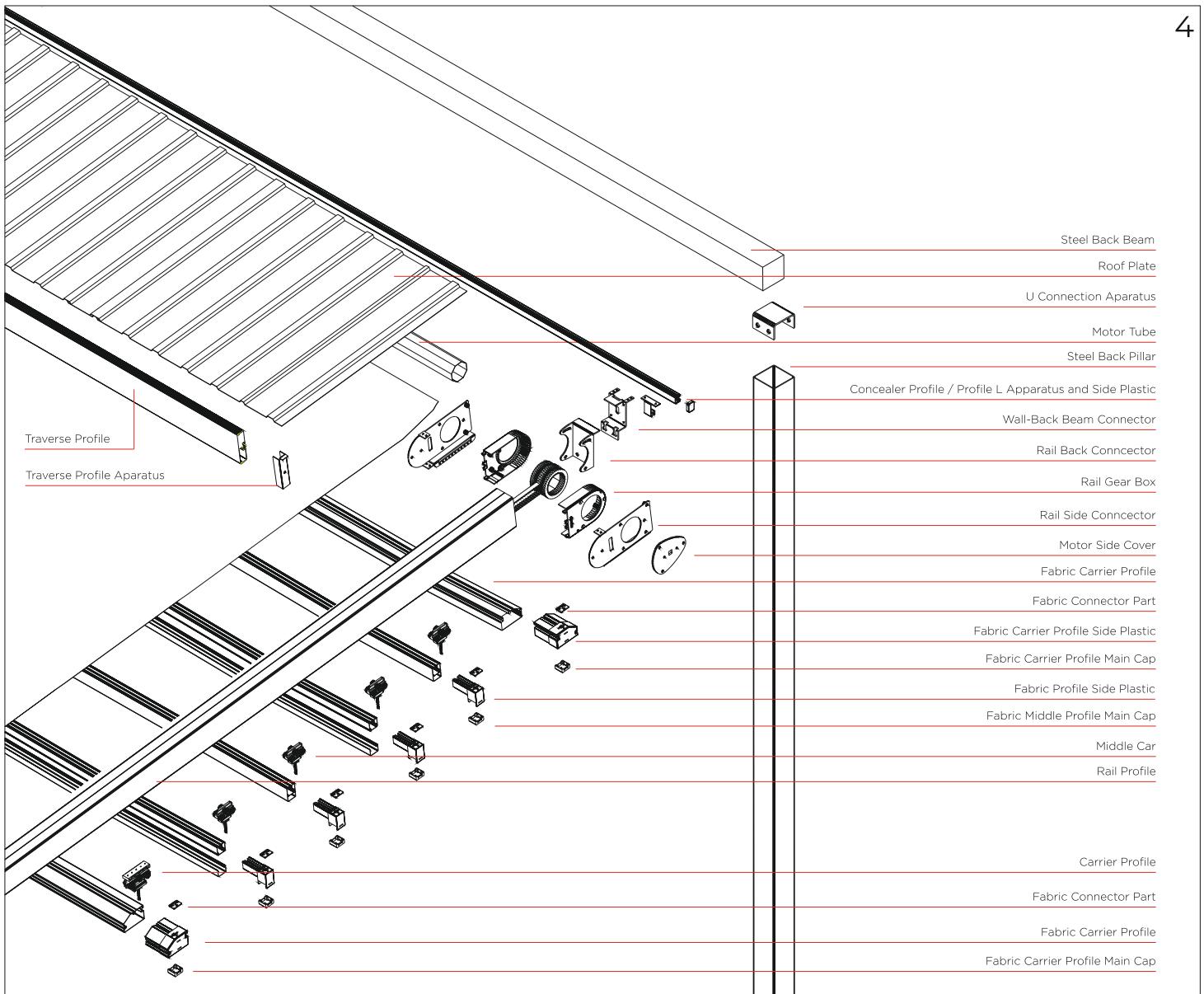
Seit unserer Gründung verzeichnen wir kontinuierliches Wachstum und Entwicklung, um die Kundenzufriedenheit und die Servicequalität kontinuierlich zu steigern. In diesem Sinne arbeiten wir eng mit der Weinor GmbH zusammen, einem führenden Unternehmen im Bereich Sonnenschutz und Markisen, um unseren Kunden umfassendere und innovativere Lösungen anzubieten

## II. Connection Point Details



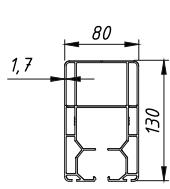
**1. Front Pillar - Ground    2. Back Pillar - Ground**

**3. Front Pillar - Rail - Gutter    4. Fabric-Rail-Back Pillar**

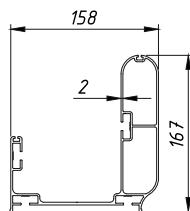


# III. Aluminum profiles, sections and properties

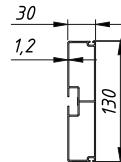
Konzept guarantees that all aluminum profiles used in its products are of **DIN6060**, **DIN6061** and **DIN6062** quality, depending on where they are used.



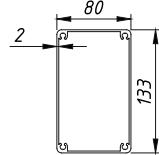
1 - GOLD rail profile



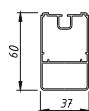
2 - GOLD gutter profile



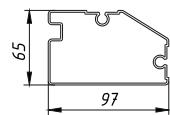
3 - GOLD traverse profile



4 - GOLD pillar profile



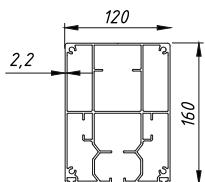
5 - GOLD middle support profile



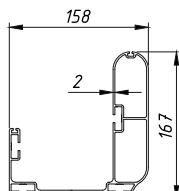
6 - GOLD carrier support profile

**GOLD**

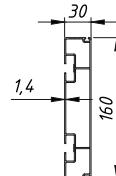
Series Profiles



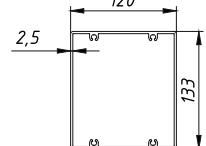
1 - DIAMOND rail profile



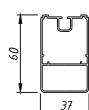
2 - DIAMOND gutter profile



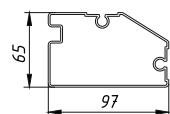
3 - DIAMOND traverse profile



4 - DIAMOND pillar profile



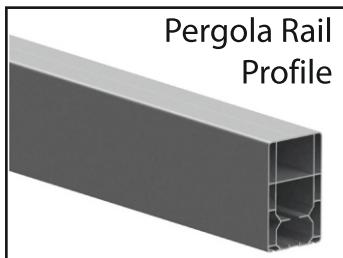
5 - DIAMOND middle profile



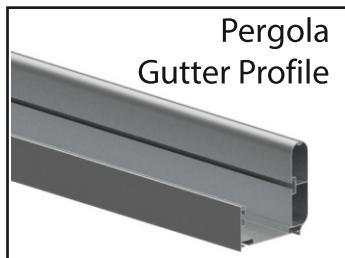
6 - DIAMOND carrier profile

**DIAMOND**

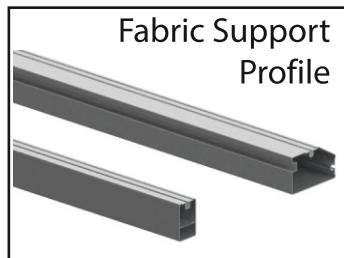
Series Profiles



Pergola Rail  
Profile



Pergola  
Gutter Profile



Fabric Support  
Profile



Front  
Pillar  
Profile

Chemical composition according to EN573-3 (EN - AW %)

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Al
									Each	Total	
6060	0,30-0,60	0,10-0,30	0,10	0,10	0,35-0,60	0,05	0,15	0,10	0,05	0,15	Rest

Mechanical properties according to EN 755-2 extruded profiles

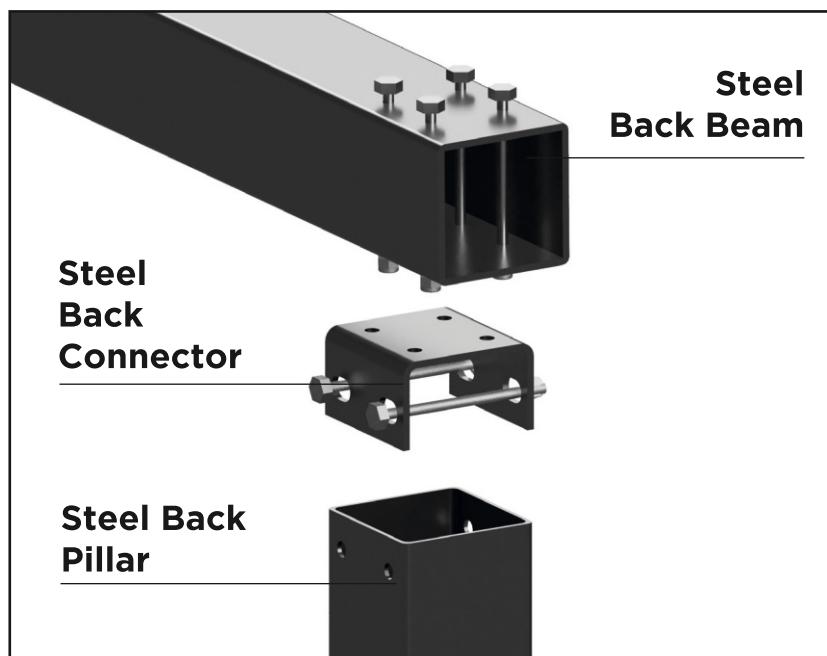
Alloy	Temper	Wall Thickness e mm*	Tensile strength Rm Mpa min	Proof stress Rpo,2 Mpa min	Elongation		Brinell Hardness HB**
					A50mm % min	A % min	
EN-AW 6060	T4	e ≤ 25	120	60	14	16	45
	T5	e ≤ 5	160	120	6	8	55
	T6	e ≤ 3	190	150	6	8	65
		3 < e ≤ 25	170	140	6	8	60
	T66	e ≤ 3	215	160	6	8	70
		3 < e ≤ 25	195	150	6	8	65

\* For different wall thicknesses of a given profile, the lowest specified values of properties shall be considered as valid for the whole profile cross-section.

\*\* The values for the HB hardness are indicative only. [aluminco.com](http://aluminco.com)

Physical properties	
Alloys EN - AW	6060
Metallic range °C	585-650
Density g/cm³	2,70
Electrical conductivity MS/m	34-38
Thermal conductivity W/(m K)	200-220
Specific Heat J/(Kg K)	898
Thermal expansion values	
-50 to 20 °C ( $10^{-6}$ K)	21,8
20 to 100 °C ( $10^{-6}$ K)	23,4
20 to 200 °C ( $10^{-6}$ K)	24,5
20 to 300 °C ( $10^{-6}$ K)	25,6
YoungsModulus Mpa	69500
ShearModulus Mpa	26100

## IV. Steel profiles, sections and properties



Steel Pillars / Steel Back Beam

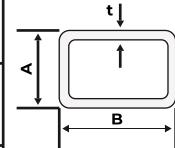
Made of steel in accordance with DIN 2395 norms.

Coated with Hot Galvanize (Min. Thickness 60 Qm)

Painted in system color with Powder Coating on Hot Galvanized,

Minimum 100x100x3mm section detail, Welded on the profile, manufactured in one piece with 25x25x5 mm steel plate, Minimum Weight: 8990 gr / mt

## Steel Profile Weight (kg/m<sup>2</sup>)

Steel Back Beam	A x B	t	3 mm	4 mm	5 mm	6 mm	
	<b>50 x 100</b>		6.630	8.650	10.500	13.260	
	<b>100 x 100</b>		8.990	11.800	14.400	17.980	
Steel Pillar	<b>100 x 150</b>		11.500	15.000	18.060	23.000	
	<b>120 x 120</b>		11.100	14.100	17.400	22.200	
	<b>150 x 150</b>		13.900	18.120	21.350	27.800	
	<b>200 x 200</b>		17.980	23.600	28.800	35.980	

## Chemical composition

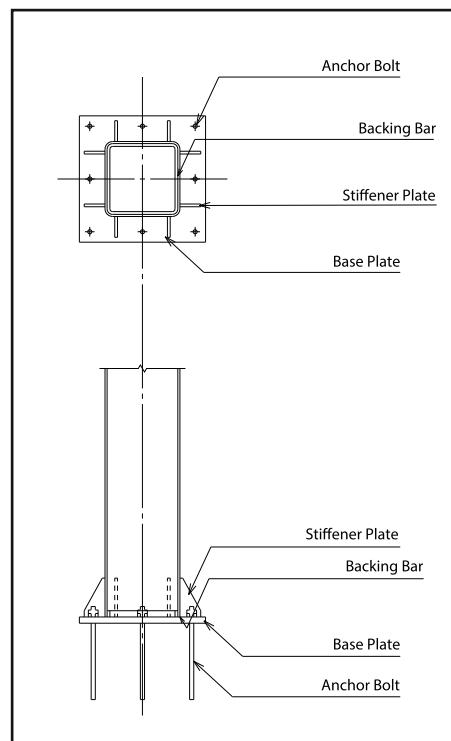
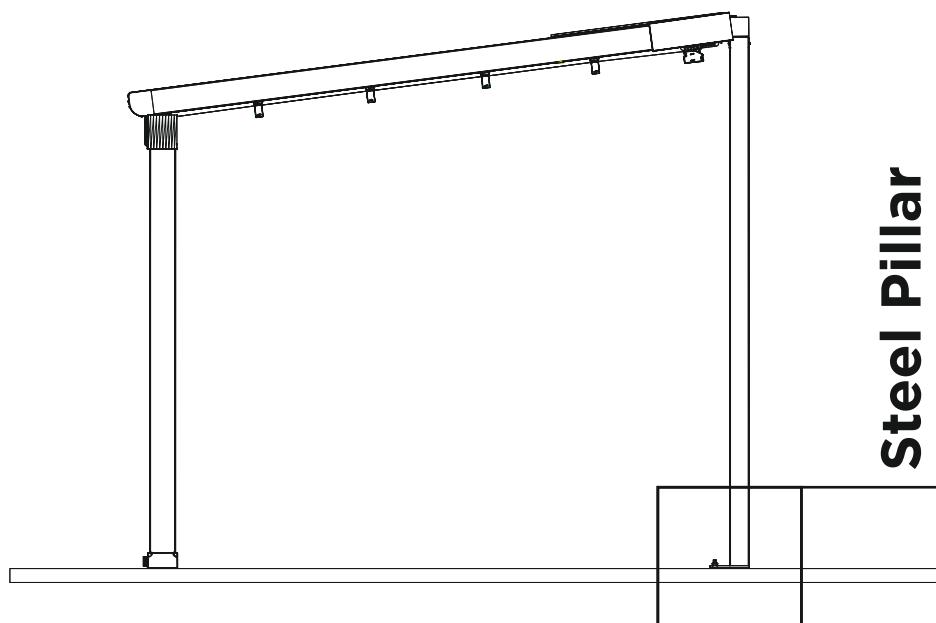
Steel grade	Styles	Carbon, max, %	Silicon, %	Manganese, %	Phosphorus, max, %	Sulfur, max, %	Nitrogen, max, %
ST37-2	Steel Angles	0.20	0.15 - 0.35	0.35 - 0.75	0.050	0.050	0.011

## Mechanical property

Steel grade	Styles	Tensile strength, ksi [MPa]	Yield point, min, ksi [MPa]	Elongation, min, δ, %
ST37-2	Steel Angles	52 - 67 [360 - 460]	34 [235]	25

## Steel Pillar

We use steel material for the back pillars in Pergolas. In projects requiring extra conditions, steel pillars are rarely used by changing the front pillars.



**Steel Pillar**

# V. Powder coating and Process properties

Konzept gives a 5-year paint warranty for its powder coated products. All aluminum and steel materials used in Sunset products are manufactured by painting with PE Electrostatic Powder Paint. Sunset is a manufacturer company that has chemical purification and abrasion facilities, which are an important part of the Zpowder coating process. Sunset, uses on all products, Europe and Turkey's finest manufacturers Powder JOTA's, PULVE and IBA brand's 1.Quality Polyester Powder Coating. Sunset paint quality complies with QUALICOAT standards. Every project produced in the Sunset factory goes through a quality control process based on the experiment and observation staff determined by QUALICOAT. A special "Quality Certificate" is prepared for each order and delivered to our customers. Sunset delivers to its customers test plates and test reports showing that these tests have been performed together with the products.

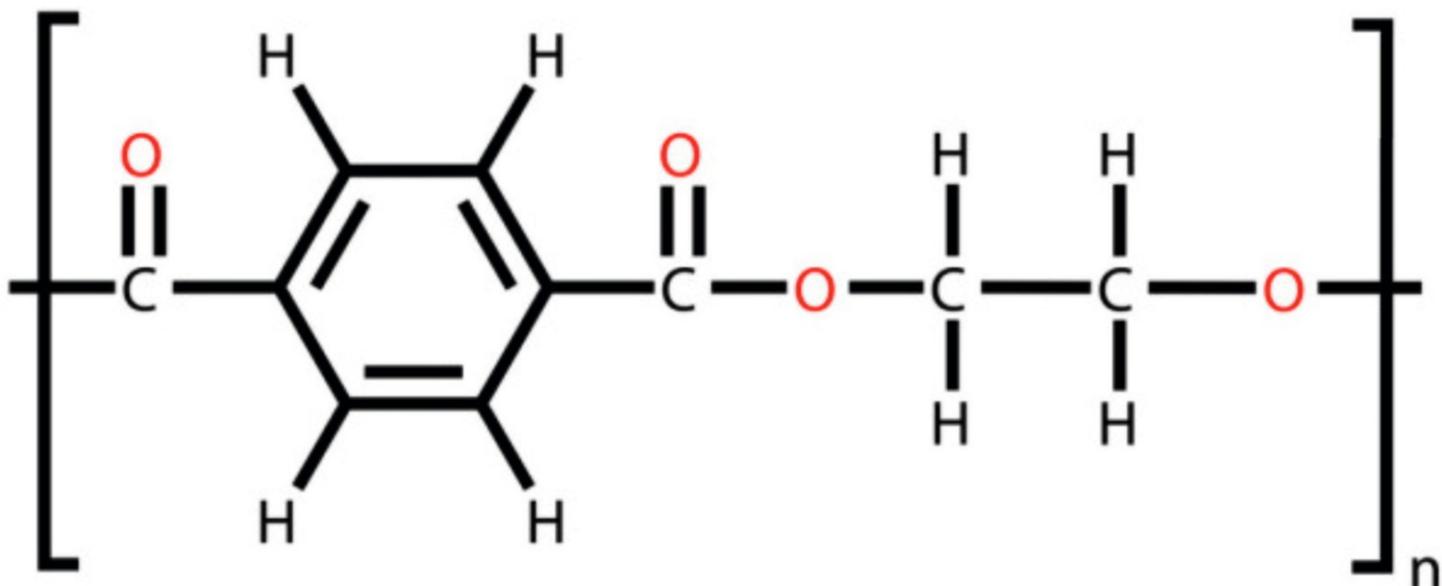
Test Standards : Within the QUALICOAT admissions, all tests listed below must be passed:

- **Adhesion Test (EN ISO 2409)**
- **Bending Test (EN ISO 1519)**
- **Impact Test (ASTM D2794)**
- **Cupping Test (EN ISO 1520)**

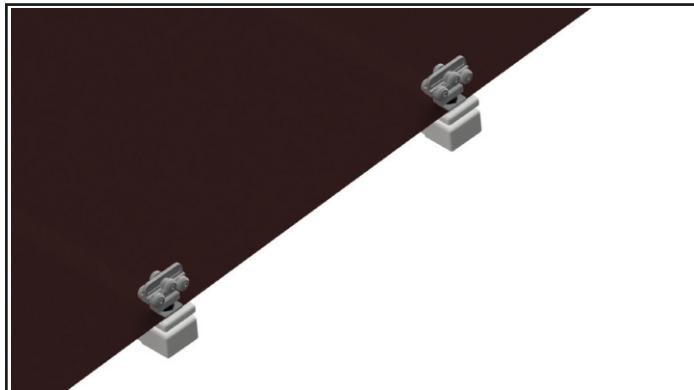
- There are 5 5m<sup>3</sup> bathrooms
- Acidic degreasing
- Mains rinse
- DI rinse
- Passivation Bath
- DI rinse



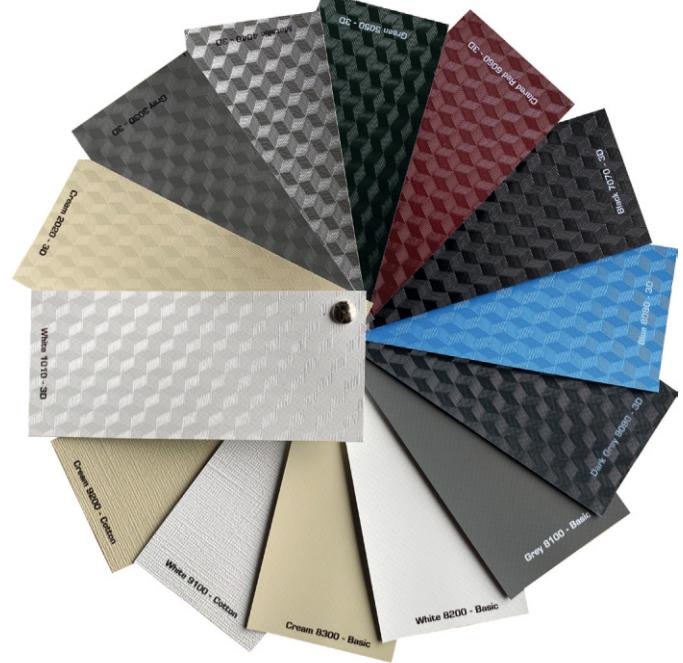
## Polyester Chemical Formula



## VI. PVC Fabric



**SIOEN**



Konzept is a working partner with SIOEN, the world's largest and highest quality PVC fabric manufacturer.

Turkey's widest range of colors and patterns deck is only available to consumers by Sunset.

We are sure that you will find the most suitable color and pattern for your living space among the fabric options that are renewed every year.

Movable ceiling cover material should be PVC-based, 800 gr / m<sup>2</sup> in weight, consisting of three layers, and blackout feature.

**Manufacturer:** SIOLINE (Belgium), FERRARI (Italy) veya MEHLER (Germany)

**Coating Type:** Coating PVC Type

**Light Transmittance** Block-out (Light Proof)

**Hygiene** UV protected Anti Lacquer Coating

**Flame Retardancy** B2 Retarder

**Weight** 800 g / m<sup>2</sup> EN ISO 2286-2

## VII. Tension / Drive Belt

SkyFree provides the movement it takes from the Tubular-based engine to aluminum panels with ELATEC (Italy), the world's number 1 manufacturer, with 16mm drive belts. Tension belts are in "HIDDEN" and "PROTECTED" condition within the Rail Profiles. Invisible from the outside and the system. The drive belt and system, which is an important movement system part, are guaranteed for 7 years.

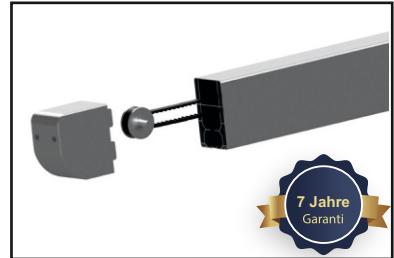
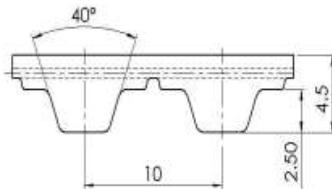
### Belt Product Specification

### 16 TT10

**Profile** TT10

**Width** 16 / 25

**Cord** Galvanized Steel



#### Dimensional characteristics

Width	16	$\pm 0.5$ [mm]
Thickness	4,5	$\pm 0.2$ [mm]
Length		$\pm 0.5$ [mm/m]
Measuring Preload	28,6	[ N ]
Weight	0,05	[Kg/m]

#### Material characteristics

TPU 92 Sh.A

Colour WHITE

#### Tension member

Diameter 0,63  
n. 11

#### Technical characteristics

Allowable Tensile load Type M [N]: 1265  
Allowable Tensile load Type V [N]: 632,5  
Breaking load FBr [N]: 4620  
Specific spring rate Cspez [N]: 316250

#### Flexibility

Drive without reverse bending Z\_min 12  
d\_min Ildler 60 [mm]

Drive with reverse bending Z\_min 20  
d\_min Ildler 60 [mm]

#### Working Temperature range

-10  $\div$  +80  $^{\circ}$  C

#### Branding



Elatech ® - 16TT10A - batch nbr - Made in Italy

## VIII. Carriages Standards

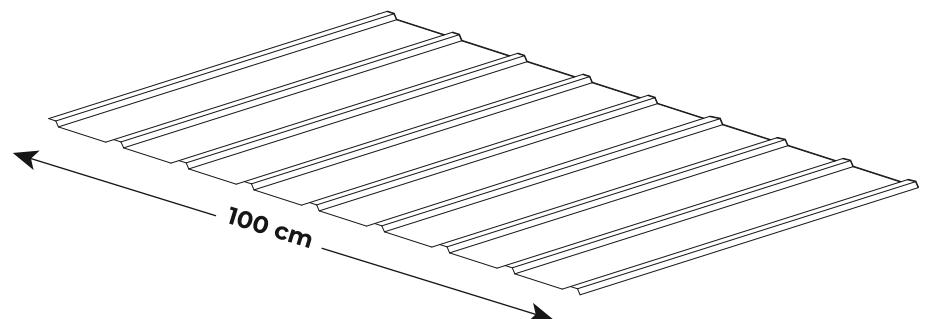
Konzept uses the highest quality principles in PVC cars and carriers, which are important parts of the movement system. In addition to the body made of ABS-added high-strength Polyester, the carrier wheels are made of DERLIN, which is not affected by liquid and dust and does not require lubrication. BRASS and / or STAINLESS steel bushings, screws and bolts are used at all connection points. Main Carrier Trolleys are "6", Secondary Carrier Trolleys are "6" wheels. Compression and conveying surface area and number make the system's fluidity perfect



## IX. System Roof Plate

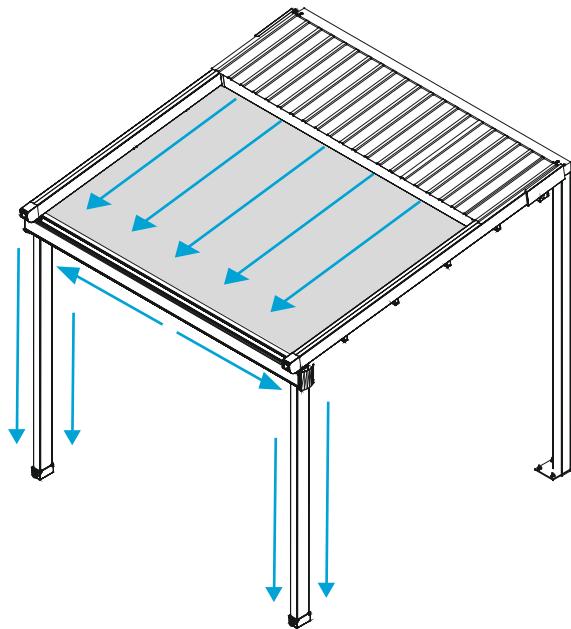
The product includes a protective roof under which all the fabric will gather when the system is turned off. As the system roof, sheet plates made of Galvanized Plate painted with Powder Paint are used. Sheet thickness min. It is 0.5 mm. System roof max. It is supported by traverse profiles made of aluminum mounted between the rails, one in 50 cm.

\* Roof plate sending to our customers 100 cm pieces to keep it more flexible and easier.



# X. Water Drainage System

The system drains the water that falls on it in rainy weather, to the stream profile thanks to its forward slope, and then to the outside via the carrier poles at the front. It is designed to have one pole profile under each rail profile. Floor connection shoes mounted under the poles should be made of Cast Aluminum and protected against rusting with protective anodized coating before powder coating. The ground connections of the pole shoes are completely hidden, no ground connection elements are visible..



## Stream Water Transfer and Discharge Capacity (Standard: TS EN 12056-3)

Groove Capacity	1,49 L/S
Drainage Capacity	1,20 L/S
Drainage Requirement*	32 m <sup>2</sup> / 1 Piece

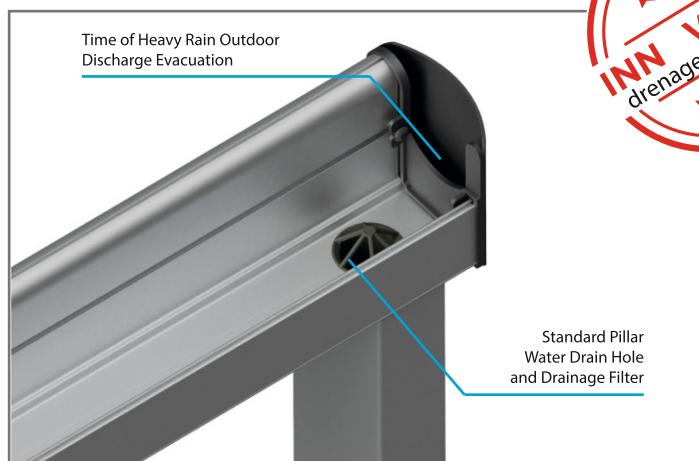
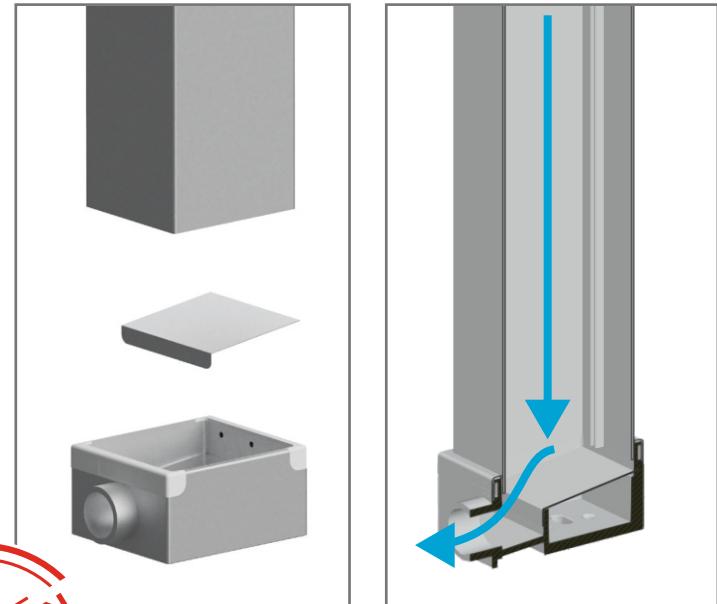
Under conditions of heavy rainfall (0,031 liters per hour)

## Water Discharge Capacity

For each of the 32 m<sup>2</sup> fabric area, Cedrus requires "1" unit of leg assy.

## De arj Tahliyesi

For the first time in the Pergola sector, the "Discharge Evacuation" solution is exclusive to Sunset. In times of sudden and heavy rainfall, the problem of overflow, which you can see in other pergolas, disappears with the "Discharge Evacuation" and your living space is not affected by the disaster.

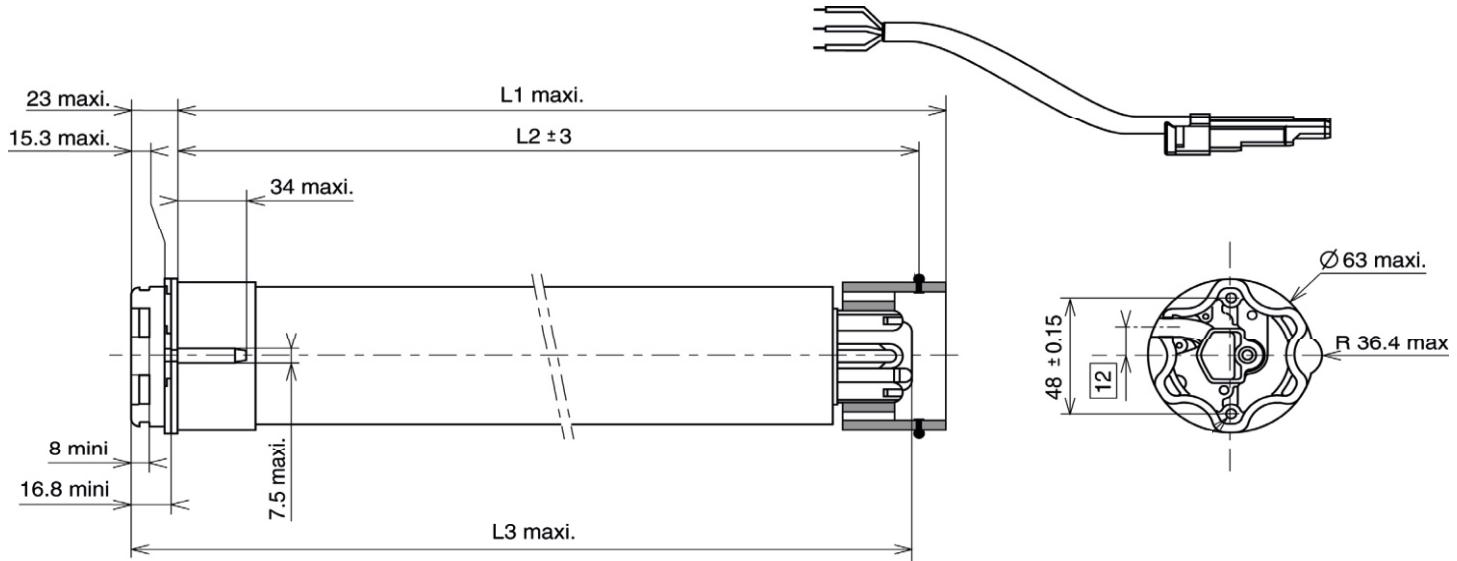


# XI. Motor and Remote Control

Movement must be provided for each product with one 85/17 Somfy Altus Motor. The motor is also controlled by Somfy RTS Telis Remote Control.

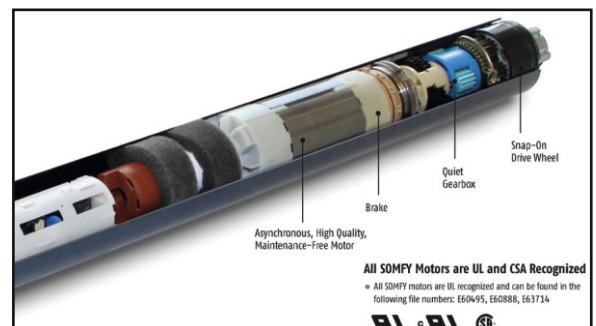


**Somfy motor cross section**



**Somfy Motor Technical Specifications**

Type of head	Star Head
Nominal voltage	230 V 50 Hz
Power supply tolerances	207 - 253 V AC
Thermal time	4 minutes
Number of wires of the cable	3
Wire section	0,75 mm <sup>2</sup>
Type of limit switch unit	Electronic
Capacity of the LSU	200 turns
Repeatability	< ± 3°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Radio frequency	433,42 MHz
Coding	Rolling code 16million of possibilities
Capacity of memory	12 different transmitters plus 3 wireless sensors
Antenna	Integrated
Range	20 m with 2 reinforced concrete walls to be passed through
R&TTE (Radio Equipment and Telecommunications Terminal Equipment Directive)	Dir 1999/5/CE
Safety Security	EN 60335 - 2 - 97
Electromagnetic compatibility	EN 301489 - 3
Radio frequency	EN 300 - 220 - 3
Application	
Principle	
Basic crown for tube Ø	63 x 1,5 mm
Temperature working range	Normal use: -10°C to +40°C      Exceptional use (20% of the life time not simultaneous): -20°C to +70°C
Noise level	According to SOMFY measures (for information only). Worse value: in load up direction during 10 seconds.



All SOMFY Motors are UL and CSA Recognized  
All SOMFY motors are UL recognized and can be found in the following file numbers: E60495, E60888, E63714

Designation	Nominal torque	Nominal speed	Reference	L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping	Brake type	Weight	Noise	mm	µF
														Stator	Capacitor
ALTUS 60 RTS 55/17	55	17	5005453	734	717	740	670	290	1,5	130	sliding	4,18	64	85	11
ALTUS 60 RTS 70/17	70	17	5005454	734	717	740	670	350	1,9	130	sliding	4,5	66	100	14
ALTUS 60 RTS 85/17	85	17	5005455	734	717	740	670	400	2,1	140*	sliding	4,7	66	115	15
ALTUS 60 RTS 100/12	100	12	5005456	734	717	740	670	350	1,9	130	sliding	4,82	65	100	14
ALTUS 60 RTS 120/12	120	12	5005457	734	717	740	670	400	2,1	140*	sliding	5,03	65	115	15

\*Red tagged motor types using in our systems

# XIII. Static Reports

## Snow Load

**SILVER**  
System

Cloud * * *	SNOW LOAD (kg/m <sup>2</sup> )																			
	2 RAILS				3 RAILS							4 RAILS								
	250	300	350	400-424	425	500	550	600	650	700	750-774	775	850	900	950	1000	1050	1100	1150	1200
250	220,0	188,0	156,0	124,0	149,0	135,3	121,7	108,0	94,3	80,7	67,0	101,0	96,5	92,0	87,5	83,0	78,5	74,0	69,5	65,0
300	188,0	160,4	132,8	105,2	126,2	114,7	103,2	91,7	80,2	68,7	57,2	86,8	82,9	79,1	75,2	71,3	67,4	63,6	59,7	55,8
350	156,0	132,8	109,6	86,4	103,4	94,1	84,7	75,4	66,1	56,7	47,4	72,6	69,4	66,1	62,9	59,6	56,4	53,1	49,9	46,6
400	124,0	105,2	86,4	67,6	80,6	73,4	66,3	59,1	51,9	44,8	37,6	58,4	55,8	53,2	50,5	47,9	45,3	42,7	40,0	37,4
450	92,0	77,6	63,2	48,8	57,8	52,8	47,8	42,8	37,8	32,8	27,8	44,2	42,2	40,2	38,2	36,2	34,2	32,2	30,2	28,2
500	60,0	50,0	40,0	30,0	35,0	32,2	29,3	26,5	23,7	20,8	18,0	30,0	28,6	27,3	25,9	24,5	23,1	21,8	20,4	19,0
550	54,0	45,3	36,5	27,8	32,5	30,0	27,6	25,1	22,7	20,2	17,8	27,0	25,7	24,4	23,2	21,9	20,6	19,3	18,0	16,8
600	48,0	40,5	33,0	25,5	30,0	27,9	25,8	23,8	21,7	19,6	17,5	24,0	22,8	21,6	20,4	19,3	18,1	16,9	15,7	14,5
650	42,0	35,8	29,5	23,3	27,5	25,8	24,1	22,4	20,7	19,0	17,3	21,0	19,9	18,8	17,7	16,6	15,5	14,4	13,3	12,3
700	36,0	31,0	26,0	21,0	25,0	23,7	22,3	21,0	19,7	18,3	17,0	18,0	17,0	16,0	15,0	14,0	13,0	12,0	11,0	10,0
750	29,0	24,7	20,3	16,0	19,0	18,2	17,3	16,5	15,7	14,8	14,0									
800	23,0	19,7	16,3	13,0	16,0	15,3	14,7	14,0	13,3	12,7										

**GOLD**  
System

Cloud * * *	SNOW LOAD (kg/m <sup>2</sup> )																			
	2 RAILS				3 RAILS							4 RAILS								
	250	300	350	400-424	425	500	550	600	650	700	750-774	775	850	900	950	1000	1050	1100	1150	1200
250	220,0	188,0	156,0	124,0	149,0	135,3	121,7	108,0	94,3	80,7	67,0	101,0	96,5	92,0	87,5	83,0	78,5	74,0	69,5	65,0
300	188,0	160,4	132,8	105,2	126,2	114,7	103,2	91,7	80,2	68,7	57,2	86,8	82,9	79,1	75,2	71,3	67,4	63,6	59,7	55,8
350	156,0	132,8	109,6	86,4	103,4	94,1	84,7	75,4	66,1	56,7	47,4	72,6	69,4	66,1	62,9	59,6	56,4	53,1	49,9	46,6
400	124,0	105,2	86,4	67,6	80,6	73,4	66,3	59,1	51,9	44,8	37,6	58,4	55,8	53,2	50,5	47,9	45,3	42,7	40,0	37,4
450	92,0	77,6	63,2	48,8	57,8	52,8	47,8	42,8	37,8	32,8	27,8	44,2	42,2	40,2	38,2	36,2	34,2	32,2	30,2	28,2
500	60,0	50,0	40,0	30,0	35,0	32,2	29,3	26,5	23,7	20,8	18,0	30,0	28,6	27,3	25,9	24,5	23,1	21,8	20,4	19,0
550	54,0	45,3	36,5	27,8	32,5	30,0	27,6	25,1	22,7	20,2	17,8	27,0	25,7	24,4	23,2	21,9	20,6	19,3	18,0	16,8
600	48,0	40,5	33,0	25,5	30,0	27,9	25,8	23,8	21,7	19,6	17,5	24,0	22,8	21,6	20,4	19,3	18,1	16,9	15,7	14,5
650	42,0	35,8	29,5	23,3	27,5	25,8	24,1	22,4	20,7	19,0	17,3	21,0	19,9	18,8	17,7	16,6	15,5	14,4	13,3	12,3
700	36,0	31,0	26,0	21,0	25,0	23,7	22,3	21,0	19,7	18,3	17,0	18,0	17,0	16,0	15,0	14,0	13,0	12,0	11,0	10,0
750	29,0	24,7	20,3	16,0	19,0	18,2	17,3	16,5	15,7	14,8	14,0									
800	23,0	19,7	16,3	13,0	16,0	15,3	14,7	14,0	13,3	12,7										

**DIAMOND**  
System

Cloud * * *	SNOW LOAD (kg/m <sup>2</sup> )																			
	2 RAILS				3 RAILS							4 RAILS								
	250	300	350	400-424	425	500	550	600	650	700	750-774	775	850	900	950	1000	1050	1100	1150	1200
250	590,0	491,4	392,7	294,1	346,0	328,6	311,1	293,7	276,3	258,8	241,4	284,0	271,4	258,8	246,1	233,5	220,9	208,3	195,6	183,0
300	500,6	416,9	333,1	249,4	293,4	278,7	263,9	249,2	234,5	219,8	205,0	241,2	230,5	219,7	209,0	198,2	187,5	176,7	166,0	155,2
350	411,2	342,4	273,5	204,7	240,8	228,8	216,7	204,7	192,7	180,7	168,6	198,4	189,5	180,7	171,8	162,9	154,0	145,2	136,3	127,4
400	321,8	267,9	213,9	160,0	188,2	178,9	169,6	160,2	150,9	141,6	132,3	155,6	148,6	141,6	134,6	127,6	120,6	113,6	106,6	99,6
450	232,4	193,4	154,3	115,3	135,6	129,0	122,4	115,7	109,1	102,5	95,9	112,8	107,7	102,6	97,4	92,3	87,2	82,1	76,9	71,8
500	143,0	118,9	94,7	70,6	83,0	79,1	75,2	71,3	67,3	63,4	59,5	70,0	66,8	63,5	60,3	57,0	53,8	50,5	47,3	44,0
550	128,3	106,5	84,8	63,1	74,3	70,8	67,3	63,8	60,3	56,8	53,3	62,8	59,8	56,9	53,9	51,0	48,1	45,1	42,2	39,3
600	113,5	94,2	75,0	55,7	65,5	62,4	59,4	56,3	53,3	50,2	47,2	55,5	52,9	50,3	47,6	45,0	42,4	39,8	37,1	34,5
650	98,8	81,9	65,1	48,2	56,8	54,1	51,5	48,9	46,3	43,6	41,0	48,3	45,9	43,6	41,3	39,0	36,7	34,4	32,1	29,8
700	84,0	69,6	55,2	40,8	48,0	45,8	43,6	41,4	39,2	37,0	34,9	41,0	39,0	37,0	35,0	33,0	31,0	29,0	27,0	25,0
750	74,3	61,8	49,3	36,8	43,3	41,2	39,2	37,2	35,2	33,2	31,2	36,8	34,9	33,1	31,3	29,5	27,7	25,9	24,1	22,3
800	64,5	53,9	43,3	32,7	38,5	36,7	34,9	33,1	31,3	29,4	27,6	32,5	30,9	29,3	27,6	26,0	24,4	22,8	21,1	19,5
850	54,8	46,1	37,4	28,7	33,8	32,1	30,5	28,9	27,3	25,6	24,0	28,3	26,8	25,4	23,9	22,5	21,1	19,6	18,2	16,8
900	45,0	38,2	31,4	24,7	29,0	27,6	26,1	24,7	23,3	21,8	20,4	24,0	22,8	21,5	20,3	19,0	17,8	16,5	15,3	14,0
950	40,5	34,5	28,5	22,5	26,5	25,1	23,6	22,2	20,7	19,3	17,9	21,0	19,8	18,6	17,4	16,2	15,0			
1000	36,0	30,8	25,6	20,4	24,0	22,6	21,1	19,7	18,2	16,8	15,3	18,0	16,8	15,6	14,4	13,2	12,0			
1050	31,5	27,1	22,7	18,3	21,5	20,0	18,6	17,1	15,7	14,2	12,8	15,0	13,5</							

# Wind Resistance (Beaufort)



**SILVER**  
System

# GOLD System

# DIAMOND System