



AssanPanel

WARRANTY DOCUMENT

Assan Panel San. ve Tic. AŞ. ("Assan Panel") hereby guarantees that, under the limitations and conditions set forth on pages 2 and 3, and to be valid for the periods specified in the table below, the sandwich panels of its own production, details of which are provided below, shall not experience perforation of their metal sheets due to corrosion, shall not lose their thermal insulation properties, and shall not lose their structural function in a manner that compromises their watertightness.

Brand	Product Type	Surface Features	Color Group	Warranty
Assan Panel	Wall - PIR Elite / PIR / PIR Elite FM	Prepainted Galvanized Steel / min. 100 g/m ² Galvanized Coating or equivalent	See Page 4 Color Groups Table	3 YEARS
	Wall – Mineral Wool	Prepainted Galvanized Steel / min. 100 g/m ² Galvanized Coating or equivalent		
	Roof - PIR Elite / PIR / PIR Elite FM	Prepainted Galvanized Steel / min. 100 g/m ² Galvanized Coating or equivalent		2 YEARS
	Roof – Mineral Wool	Prepainted Galvanized Steel / min. 100 g/m ² Galvanized Coating or equivalent		
Opti Panel	Roof / Wall - LP PIR / PUR Elite / PUR	Prepainted Galvanized Steel / min. 40 g/m ² Galvanized Coating or equivalent		
* For non-standard warranty claims, please apply to the R&D & Marketing Directorate.				

Delivery Note and Invoice No:	
Product Type - Brand:	
Authorized Dealer Title:	
Authorized Dealer Contact:	
Assan Panel Contact:	Yayla Mah. D- 100 Karayolu Rüya Sok. No: 2 34940 Tuzla, İstanbul T : + 90216 581 17 00 F : + 90216 446 38 55
Stamp & Signature:	

ASSAN PANEL WARRANTY LIMITATIONS AND CONDITIONS

The warranty certificate shall be valid if the products have been purchased directly from Assan Panel or an authorized dealer/representative/installer etc., and if the Purchaser has had the products installed by Assan Panel's authorized installer/contractor.

The Opti Panel ECOmy product group within the Opti Panel brand is excluded from the scope of the warranty.

The warranty period commences from the date of manufacture and is valid exclusively for the project specified on the first page of this warranty certificate. Assan Panel's liability is strictly limited to the invoice value of the damaged products. Installation, dismantling, transportation, loading, and unloading expenses are not covered under the warranty. In preparing the warranty certificate, the current warranty terms and conditions applicable on the day of shipment shall apply. If the delivery note and invoice are not attached to this warranty certificate, only the statutory warranty periods shall be applicable.

Important information regarding transportation: Panels are packaged in large bundles wrapped with shrink film and dispatched to jobsites via trucks. Upon receipt of a shipment, the product quantities, dimensions, colors, and the presence of any transit damage across all packages must be inspected. In the event of any shortage or damage, prepare a written report regarding the matter and have it signed by the driver. It is the buyer's responsibility to file a claim for any damage. Failure to provide notification shall constitute acceptance that the products were received complete and undamaged.

Even though all efforts are made to prevent the occurrence of transit damage, Assan Panel cannot be held liable for damages that may occur during transportation, delivery, storage, or handling. Taking photographs that demonstrate the panels are damaged before the products are unloaded from the delivery vehicle will assist in securing your compensation claims from the transportation company.

The warranty shall be valid provided that the Purchaser complies with all terms and conditions (including payment terms) of the contract entered into with Assan Panel, and that the Purchaser fulfills all of its obligations falling within the scope of this warranty. Assan Panel cannot be held liable for loss or damage caused by the Purchaser or arising as a result of force majeure.

This warranty certificate is issued by Assan Panel on the assumption that the answers provided by the Purchaser to the questionnaire included in the annex of the contract are complete and accurate.

Assan Panel does not accept liability for defects that may occur in the product due to changes in building utilization. The indoor and outdoor environmental conditions during product installation shall be deemed "suitable" if, and only if, audited, exhaustive, and complete information has been provided to Assan Panel.

Assan Panel's liability for raw materials, products, or services supplied without being of its own origin is limited to the liability of the manufacturers manufacturing these raw materials, products, and/or services for Assan Panel, or the suppliers supplying them to Assan Panel. Assan Panel's delivery liability, on the other hand, shall be limited to the liability of the carrier regarding the respective delivery, regardless of whether the liability of the manufacturer, supplier, or carrier has been notified to the Purchaser.

a) This warranty shall not relieve the architect of their obligation to design details in accordance with recommended good practices, or their duty to properly supervise the construction work.

b) It shall not relieve the Purchaser of their obligation to have protective maintenance performed on the building fabric.

c) It shall not relieve the building owner of their obligation to properly and skillfully repair the roof sheets.

Assan Panel does not provide any warranty regarding the color of the inner or outer metal sheets due to changes in environmental conditions. The paint warranty is solely against peeling and flaking of the paint; the perforation performance warranty applies only if corrosion-based holes are formed on more than 10% of the metal surfaces and against color changes where ΔE^* is greater than 8. All other defects related to paint are excluded from the scope of the warranty.

The color difference between panels may be a maximum of $\Delta E^* 2$. Tone differences above this value shall be evaluated within the scope of the warranty. Even if no color difference is detected during device inspections for metallic and fluorescent colors, tone differences may be visible to the naked eye. Any color differences that may occur in these colors are excluded from the scope of the warranty. Color differences arising except for instances where prior notification was given that orders would be placed at different times and actions were taken to purchase coils from the same batch for this situation are excluded from the scope of the warranty.

In membranous panel productions, any color differences that may be observed on the membrane surface are excluded from the scope of the warranty.

The warranty for maintaining the insulation performance of sandwich panels includes the preservation of the thermal conductivity coefficient of the panels.

In any case, all attachments, fixing elements, sealants, and system components shall be provided and approved by Assan Panel. Otherwise, the warranty shall lose its validity.

The warranty is not valid for products damaged during horizontal or vertical movements or during installation processes carried out by installers/contractors not authorized by Assan Panel. Applications performed under unsuitable conditions and circumstances that fall outside of those specified in the Assan Panel package warranty certificate and Assan Panel Shipment-Installation-Maintenance documents are not covered under the warranty.

If the delivery is to be made by Assan Panel and any loss or damage occurs during shipment, photographs subject to the claim must be taken while the products are still loaded on the truck or in the container, and must be attached to the official damage notification signed by the personnel responsible for transportation. Otherwise, claims and demands subject to loading/unloading or transportation shall not be taken into consideration by Assan Panel.

If Assan Panel products are considered not to meet the relevant performance criteria, a written notification containing the defect/error type, quantity, along with its potential cause, the product batch number, and at least 1 (one) photograph regarding the problem must be submitted to Assan Panel within 7 (seven) days. Assan Panel shall visit the facility where the products are used to carry out the necessary inspection.

A written inspection report must be submitted to Assan Panel within 14 days following each annual inspection, utilizing the form to be prepared (Manufacturer Inspection Page & Maintenance Guide). Subsequently, the Purchaser shall be required to implement the preventive maintenance, to be recommended in writing by Assan Panel, within 4 weeks following the notification date. In the event that periodic maintenance inspections are not performed, maintenance inspection forms cannot be produced during audits, or it is determined that maintenance has not been carried out, the warranty shall be deemed void.

The invoice does not substitute for a warranty certificate.

The warranty is not valid under the following conditions:

Losses and damages due to storms, and matters falling within the scope of an ordinary Building Insurance Policy are excluded.

Deformations due to mechanical impacts;

Damages that may cause metal damage due to emergencies (natural disasters, sandstorms, floods, storms, lightning strikes, hurricanes, acid rain, extreme hailstorms, terrorist attacks) and environmental factors (high UV, radiation, industrial contamination, smoke and soot, seawater and other saltwater contamination);

Contact with corrosive materials (acid, alkali, salt, detergents, accumulation of metallic particles originating from the external environment on the final metals, exposure to copper-containing components and liquids) and damages due to chemical reactions;

Loss of paint, color, and gloss due to rusting and other environmental conditions;

Loss of color and gloss, formation of Back Coat (primer on the reverse side of metals) corrosion, and utilization in a manner exposed to outdoor conditions;

Final metals must be used temporarily within the temperature range of -20 °C and +100 °C, and the accepted temporary maximum temperature shall be +60 °C.

Storage of products under unsuitable conditions (warehouse areas where the extreme temperature difference ΔT is above 10 °C and the relative humidity rate is above 70%; warehouse areas not protected from outdoor conditions such as moisture or water; storage in the warehouse area without placing chocks, pallets, or stands underneath the products);

Cutting of final metals using unsuitable calorific tools and equipment, failure to perform finishing or apply a protective paint coat on pieces with cut edges, millings, or drilled holes;

Failure to clean metal surfaces with suitable materials;

Damages arising from incorrect use and installation not suitable for the final utilization place of the products (insufficient roof slope, presence of metal particle residues on the surface during the installation phase, etc.);

Damage to products with a protective film layer due to the storage of film-layered products in the warehouse for longer than 1 month, exposure of the products to outdoor conditions during the installation phase for longer than 7 days, or failure to remove the film layer from the final products;

In the application of solar panels, problems that may arise from using solar fixture sets other than Assan Panel solar fixture sets or from the incorrect application of solar fixtures (e.g., improper installation of the fixture) and/or problems that may occur during use due to the solar panel or its installation;

Damages that may occur during the handling, shipment, and installation phases. Problems that may occur on the surface due to deteriorations in the core material of the panel after incorrect handling on site, and problems that may occur on the surface due to stress related to mechanical installation are excluded from the scope of warranty. (Shipment of aluminum products must be carried out with closed vehicles; their installation on the roof must commence immediately. Aluminum products must not come into contact with water while packaged);

Utilization of products with a slope of less than 10% and continuous water ponding on the products (insulation shall be applied to connection elements such as windows and chimneys, and water accumulation shall be prevented);

Utilization of products at altitudes exceeding 900 m above sea level (in the event that the products are to be used at altitudes exceeding 900 m, the warranty period shall be limited to half of the original warranty period);

Utilization of products within a distance of 2 km from the seashore;

Painting of surfaces by any method other than the method specified by the manufacturer;

Failure to comply with transportation, storage, and installation conditions and instructions for sandwich panels and single-layer trapezoidal sheets manufactured from Assan Panel prepainted galvanized steel or aluminum;

Failure to perform the annual inspections explained in the Manufacturer Inspection Page & Maintenance Guide.

Indoor condensation and other non-conformities arising from the failure to select technical product specifications suitable for regional climatic conditions and project technical details (slope, snow load, wind load, relative humidity rate, etc.) are excluded from the scope of warranty.

For claims and demands accepted by Assan Panel, Assan Panel reserves the right to decide how the subject claim will be resolved—whether by repair or replacement, refund, or discount. Assan Panel has the option to request the return of all replaced sheets. Assan Panel cannot be held liable for consequential damages due to delays experienced in the delivery of products or defects in the delivered products. The warranty period of the replaced panels is limited to the remaining warranty period of the initially purchased panels. Assan Panel reserves the right to modify the written warranty commitment above.

In the event of a dispute, the subject of the dispute shall be governed by and construed in accordance with Turkish laws.

TRANSPORTATION, STORAGE, AND INSTALLATION CONDITIONS AND INSTRUCTIONS FOR SANDWICH PANELS AND SINGLE LAYER TRAPEZOIDAL SHEETS MANUFACTURED FROM PREPAINTED GALVANIZED STEEL OR ALUMINUM

1. Paint peeling, color fading, and loss of gloss caused by dust and other environmental conditions on Sandwich Panels and Trapezoidal sheets are outside the scope of Assan Panel's warranty.

2. Damages to the metal caused by extraordinary conditions (natural disasters, sandstorms, floods, hurricanes, lightning strikes, tornadoes, acid rain, extreme hailstorms, terrorist attacks) and environmental factors (radiation, industrial pollution, smoke and soot, contamination by seawater or other saltwater) are outside the scope of Assan Panel's warranty.

3. Damages arising from contact with corrosive materials (acids, bases, detergents, accumulation of metallic particles originating from the external environment on the prepainted metal, exposure to copper-containing components and liquids) are outside the scope of Assan Panel's warranty.

4. For trapezoidal sheets, loss of color and gloss, formation of corrosion, and utilization in a manner exposed to the outdoor environment on the "Back Coat" (primer on the reverse side of the metal) are outside the scope of Assan Panel's warranty.

5. Prepainted metal should be used within the temperature range of -20°C and $+100^{\circ}\text{C}$. (Polyester paints are intended for continuous use under the same temperature. For lower and higher values, products painted with suitable paint types may be preferred.)

6. Paint blistering or darkening that may occur due to the layer-like spreading of moisture on the surface as a result of the metal getting wet during transportation, unloading, and storage is outside the scope of Assan Panel's warranty. (Even if there is a protective film layer on the surface)

7. Materials must not be stockpiled under unsuitable storage conditions. (Storage without protection against moisture or water from the external environment, storage without chocks, pallets, or coil stands underneath the product)

8. Cut edges, slitted, and drilled sections of the prepainted metal must be painted with protective paint.

9. Metal surface cleaning must be carried out with suitable products and in accordance with the specifications.

10. Damages arising from incorrect application and installation depending on the final utilization place of the products are outside the scope of Assan Panel's warranty. (Insufficient roof slope, presence of metal particles remaining on the surface during installation, surface rippling etc. that may occur after morning installations especially in regions where the temperature difference between morning and noon is high during winter months - for detailed information, see the Transportation, Installation, and Protection Instructions)

11. For products with a protective film, damages arising from storing the filmed product in the warehouse for longer than 1 month, and the film remaining on the prepainted metal for longer than 7 days under outdoor conditions during the installation phase without being removed are outside the scope of Assan Panel's warranty.

12. Products used in structures located within 2 km of the seashore are outside the scope of Assan Panel's warranty.

13. Damages that may occur during transportation and installation are outside the scope of Assan Panel's warranty. Problems that may occur on the surface due to deteriorations in the core material of the panel after incorrect handling on site, and problems that may occur on the surface due to stress related to mechanical installation are excluded from the scope of warranty.

14. Aluminum products must absolutely be transported in closed vehicles and their installation on the roof must commence immediately. They must not come into contact with water while packaged.

15. The material must not come into direct contact with materials such as acid, salt, and concrete; continuous water ponding must be prevented.

16. Water insulation must be applied at the cutting points of details such as windows and chimneys, and ponding of water must be prevented.

17. Fasteners such as screws and hooks must be made of galvanized or stainless steel.

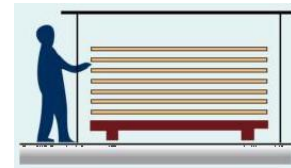
18. Depending on the loads to be imposed on the materials, installation must be carried out at purlin spacings within the limits of the load span tables in Assan Panel's brochures. The installation of the panels must be performed in accordance with the approved application instructions.

19. Instances falling outside the length limits set forth on Page 4 and the span value range tables of the respective product on Pages 5-6-7-8 are outside the scope of Assan Panel's warranty. The installation of Group II and Group III light and dark colored panels must be carried out when the air temperature is 10°C and above.

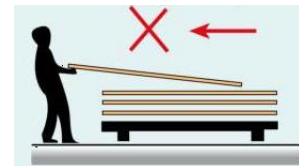
20. Place sandwich panels and trapezoidal sheets that will wait for a long time at the jobsite in an enclosed area. Place wooden chocks with a height of at least 10 cm along the long edge of the panel against water accumulation on the ground. Additionally, the storage area must allow for air circulation.



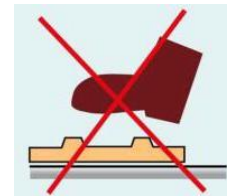
21. Protect sandwich panels and trapezoidal sheets from external influences even during short-term storage. Place pallets underneath them. Position them with a slope of at least 2% against water accumulation. Strictly place a cover over the panels and trapezoidal sheets.



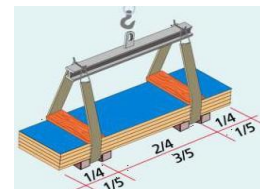
22. Do not pull or drag the panels and trapezoidal sheets within the stack. Remove them by holding from both ends, pressing down on one long edge, and lifting the other long edge. Pulling and dragging actions may cause scratches, especially on the metal.



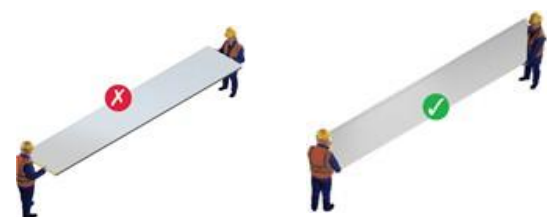
23. During installation, walking on the material with any footwear other than rubber-soled shoes is strictly prohibited. After installation, the material should only be stepped on when maintenance is required, and the material must be protected from impacts.



24. Protect the material from sling crushing during crane lifting. Lifting and lowering equipment must be determined in accordance with the package specifications.



25. Panels must never be handled horizontally; they must always be handled vertically on their long edge by at least two people, depending on the panel length and weight. Handling the panels horizontally causes excessive flexing.



26. Assan Panel's liability is limited to the cost of the products sold.

27. The use of protective equipment during panel loading and unloading is mandatory, and standing around the vehicle is dangerous and prohibited in terms of occupational safety.

Table of Length Limits

Filling Type	Panel Type	Color Groups		
		Very Light Colors	Light Colors	Dark Colors
PIR	Wall	12.000	6.000**	6.000**
	Roof	13.500	12.000	6.000
PUR	Wall	12.000	8.000	6.000
	Roof	13.500	12.000	9.000
Mineral Wool	Wall	10.000	8.000	6.000
	Roof	11.000	11.000	9.000

* The relevant values apply to PIR/PUR products with thicknesses of 0.50/0.40 mm and above, where the upper metal sheet is 0.00–0.10 mm thicker than the lower metal sheet; and to rockwool-insulated products with thicknesses of 0.55/0.50 mm and above, where the upper metal sheet is 0.00–0.10 mm thicker than the lower metal sheet. For metal sheet thicknesses outside of these values, please contact the R&D & Marketing Directorate.

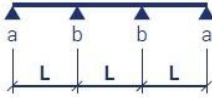
** It applies to Sine and Deep Corrugation profiles; for light and dark colors in standard and micro profiles, there is no warranty coverage independent of panel lengths.

Table of Color Groups

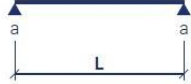
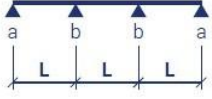
Group - 1 Very Light Colors	1000	1013	1014	1015	1016	1018	1026			
	6019	7035	9001	9002	9003	9010	9016			
Group - 2 Light Colors	1001	1002	1003	1004	1005	1007	1011	1012	1017	1019
	1020	1021	1023	1027	2000	2003	2004	2008	2011	2012
	5012	5014	5015	5018	5024	6018	6021	6027	6033	6034
	7000	7032	7034	7037	7038	7040	7044	7045	7047	9018
Group - 3 Dark Colors	3000	3002	3003	3005	3009	3011	5002	5004	5005	5009
	5010	5011	5022	6000	6003	6005	6011	6020	6029	7015
	7016	7022	7024	7026	7031	7038	7043	8011	8012	8014
	8016	8017	8019	8022	8023	9004	9005	9006	9007	9017

For RAL Codes not included in the table, please contact the relevant R&D & Marketing Directorate.

Micro, Standard, Sinus Wall Panel (PIR) - W / WD

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 Wind Loads	
			0.80 kN/m ² -0.40 kN/m ²	1.10 kN/m ² -0.55 kN/m ²
Single Aperture (m) 	40	II, III	2.70	2.30
	50	II, III	3.00	2.60
	60	II, III	3.30	2.85
	70	II, III	3.60	3.10
	80	II, III	3.85	3.30
	100	II, III	4.32	3.70
	120	II, III	4.70	4.00
	150	II, III	5.30	4.50
	170	II, III	5.60	4.80
Multiple Aperture (m) 	40	II, III	2.20	2.00
	50	II, III	2.30	2.10
	60	II, III	2.50	2.30
	70	II, III	2.70	2.50
	80	II, III	2.90	2.70
	100	II, III	3.25	3.00
	120	II, III	3.60	3.30
	150	II, III	4.00	3.70
	170	II, III	4.30	3.90

WDW WallPanel (PIR)

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 Wind Loads	
			0.80 kN/m ² -0.40 kN/m ²	1.10 kN/m ² -0.55 kN/m ²
Single Aperture (m) 	40	II, III	3.20	2.70
	50	II, III	3.60	3.10
	60	II, III	4.00	3.40
	80	II, III	4.70	4.00
	100	II, III	5.30	4.50
Multiple Aperture (m) 	40	II, III	2.20	2.00
	50	II, III	2.40	2.20
	60	II, III	2.60	2.40
	80	II, III	3.00	2.70
	100	II, III	3.30	3.00

Notes:

1. Metal sheet thickness (outer / inner): 0.50 / 0.40 mm
2. Values are calculated using the limit state method defined in the EN 14509:2013 standard, taking into account live loads, temperature effects, and creep.
3. All panel thicknesses are calculated based on a minimum end support width of 40 mm and an intermediate support width of 60 mm. Larger support widths are possible.
4. The following deflection limits have been used: L/100
5. In calculations, color group II-III open and dark colors have been selected for the outer metal sheet. The installation of Group II - Group III light and dark colored panels must be carried out when the air temperature is 10 °C and above.
6. For the calculations to be performed, certain data from Table E6 and coefficients from Table E8 in the EN 14509 standard have been used.
7. Screw pull-out strength was not taken into account when calculating spans. Fastener calculations must be carried out in accordance with the relevant standards.
8. Permissible steel construction tolerances between the seating planes of adjacent supports must comply with the EN 1090 standard.
9. Support spacings can be applied at a maximum of 10% below and above the values in the table. For wider spans, please inquire with the Assan Panel Marketing Department.
10. Regarding length limits, the limit values specified in the Assan Panel length limits table shall apply.
11. According to the TS 498 standard, a span suitable for wind load values of 0.80 kN/m² / -0.40 kN/m² must be selected for buildings not exceeding 20 m, and for wind loads of 1.10 kN/m² / -0.55 kN/m² for buildings 20 m and higher.

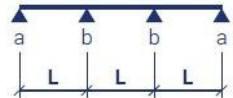
N3, N5, Solar Cap, R4, S5 Solar Roof Panel (PIR)

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 – Snow and Wind Loads
			1.00 kN/m ² -0.60 kN/m ²
Single Aperture (m)	30	I	1.80
	40	I	2.10
	50	I	2.50
	60	I	2.90
	70	I	3.35
	80	I	3.70
	100	I	4.50
	120	I	5.10
	150	I	6.00
Multiple Aperture (m)	30	I	1.80
	40	I	2.00
	50	I	2.10
	60	I	2.20
	70	I	2.20
	80	I	2.30
	100	I	2.40
	120	I	2.50
	150	I	2.70

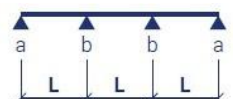
Notes:

1. Metal sheet thickness (outer / inner): 0.50 / 0.40 mm
2. Values are calculated using the limit state method defined in the EN 14509:2013 standard, taking into account live loads, temperature effects, and creep.
3. All panel thicknesses are calculated based on a minimum end support width of 40 mm and an intermediate support width of 60 mm. Larger support widths are possible.
4. The following deflection limits have been used: L/200
5. In calculations, color group I - very light colors have been selected for the outer metal sheet. I - Very Light colors → T1 = +55 °C
6. For the calculations to be performed, certain data from Table E6 and coefficients from Table E8 in the EN 14509 standard have been used.
7. Screw pull-out strength was not taken into account when calculating spans. Fastener calculations must be carried out in accordance with the relevant standards.
8. Permissible steel construction tolerances between the seating planes of adjacent supports must comply with the EN 1090 standard.
9. Support spacings can be applied at a maximum of 10% below and above the values in the table. For wider spans, please inquire with the Assan Panel Marketing Department.
10. Regarding length limits, the limit values specified in the Assan Panel length limits table shall apply.

Micro, Standard Wall Panel (MW) - W/WD

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 Wind Loads	
			0.80 kN/m ² -0.40 kN/m ²	1.10 kN/m ² -0.55 kN/m ²
Single Aperture (m)	40	II, III	2,50	1,80
	50	II, III	3,20	2,30
	60	II, III	3,60	2,80
	70	II, III	3,80	3,10
	80	II, III	4,10	3,30
	100	II, III	4,60	3,60
	120	II, III	4,90	3,60
	150	II, III	5,00	3,60
	170	II, III	5,00	3,60
Multiple Aperture (m)	40	II, III	2,30	1,90
	50	II, III	2,60	2,30
	60	II, III	2,90	2,40
	70	II, III	3,10	2,60
	80	II, III	3,30	2,70
	100	II, III	3,70	3,00
	120	II, III	4,10	3,00
	150	II, III	4,10	3,00
	170	II, III	4,10	3,00

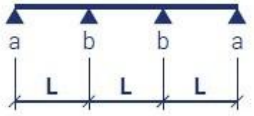
WDWT Wall Panel (MW)

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 Wind Loads	
			0.80 kN/m ² -0.40 kN/m ²	1.10 kN/m ² -0.55 kN/m ²
Single Aperture (m)	40	II, III	1,90	1,40
	50	II, III	2,60	1,90
	60	II, III	3,30	2,40
	80	II, III	4,40	3,20
	100	II, III	4,80	3,50
Multiple Aperture (m)	40	II, III	1,90	1,40
	50	II, III	2,60	1,90
	60	II, III	2,90	2,40
	80	II, III	3,40	2,70
	100	II, III	3,70	3,00

Notes:

1. Metal sheet thickness (outer / inner): 0.55 / 0.50 mm
2. Values are calculated using the limit state method defined in the EN 14509:2013 standard, taking into account live loads, temperature effects, and creep.
3. All panel thicknesses are calculated based on a minimum end support width of 40 mm and an intermediate support width of 60 mm. Larger support widths are possible.
4. The following deflection limits have been used: L/100
5. In calculations, color group II-III open and dark colors have been selected for the outer metal sheet. The installation of Group II - Group III light and dark colored panels must be carried out when the air temperature is 10 °C and above.
6. For the calculations to be performed, certain data from Table E6 and coefficients from Table E8 in the EN 14509 standard have been used.
7. Screw pull-out strength was not taken into account when calculating spans. Fastener calculations must be carried out in accordance with the relevant standards.
8. Permissible steel construction tolerances between the seating planes of adjacent supports must comply with the EN 1090 standard.
9. Support spacings can be applied at a maximum of 10% below and above the values in the table. For wider spans, please inquire with the Assan Panel Marketing Department.
10. Regarding length limits, the limit values specified in the Assan Panel length limits table shall apply.
11. According to the TS 498 standard, a span suitable for wind load values of 0.80 kN/m² / -0.40 kN/m² must be selected for buildings not exceeding 20 m, and for wind loads of 1.10 kN/m² / -0.55 kN/m² for buildings 20 m and higher.

N5T, S5T, R5T Roof Panel (MW)

	Insulation Thickness (mm)	Outer Sheet Col. Grp.	TS498 – Snow and Wind Loads
			1.00 kN/m ² -0.60 kN/m ²
Single Aperture (m) 	30	I	1,50
	40	I	1,70
	50	I	1,90
	60	I	2,10
	70	I	2,30
	80	I	2,50
	100	I	2,80
	120	I	3,20
	150	I	3,20
Multiple Aperture (m) 	30	I	1,50
	40	I	1,70
	50	I	1,90
	60	I	2,10
	70	I	2,30
	80	I	2,50
	100	I	2,70
	120	I	2,70
	150	I	2,70

Notes:

1. Metal sheet thickness (outer / inner): 0.55 / 0.50 mm
2. Values are calculated using the limit state method defined in the EN 14509:2013 standard, taking into account live loads, temperature effects, and creep.
3. All panel thicknesses are calculated based on a minimum end support width of 40 mm and an intermediate support width of 60 mm. Larger support widths are possible.
4. The following deflection limits have been used: L/200
5. In calculations, color group I - very light colors have been selected for the outer metal sheet. I - Very Light colors → T1 = +55 °C
6. For the calculations to be performed, certain data from Table E6 and coefficients from Table E8 in the EN 14509 standard have been used.
7. Screw pull-out strength was not taken into account when calculating spans. Fastener calculations must be carried out in accordance with the relevant standards.
8. Permissible steel construction tolerances between the seating planes of adjacent supports must comply with the EN 1090 standard.
9. Support spacings can be applied at a maximum of 10% below and above the values in the table. For wider spans, please inquire with the Assan Panel Marketing Department.
10. Regarding length limits, the limit values specified in the Assan Panel length limits table shall apply.