klar

AMERILUX INTERNATIONAL

AUTHORIZED DISTRIBUTOR

TK9 AG LINER

Klar Interior Installation Guide

1. PRODUCT DESCRIPTION

Klar multilayer thermo-acoustic panels are composed of a series of layers, manufactured with the most advanced co-extrusion technology, which provide excellent resistance to impact and extreme climates, ensuring their long useful life.

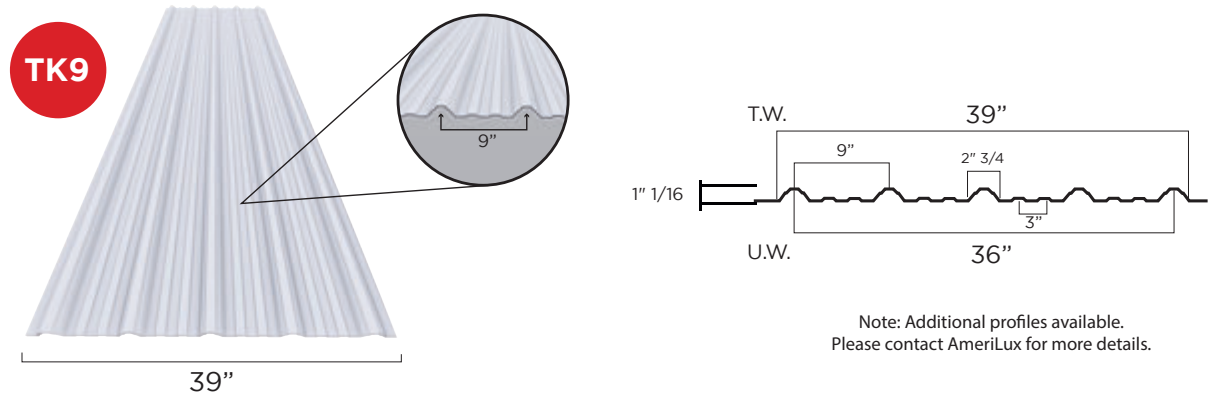
2. GENERAL CHARACTERISTICS

FIRE RESISTANCE	DIN 4102 Classification, hardly flammable. In case of fire, flames have low propagation and reduced smoke emission. In addition, it does not generate thermal drip.
HIGH CORROSION RESISTANCE	Our panels can be subjected to saline, alkaline or acidic solutions with a concentration of less than 60% during a continuous 24-hour exposure. Unlike other coverings, they do not rust, avoiding problems due to water leaks and favoring water-exposed environments.
THERMAL INSULATION	Due to their low thermal conductivity, the transmission flow of external temperature (heat and cold) into a room is very low, improving efficiency and lowering your utility bills. The insulation coefficient is up to 25% higher than those of metal coverings.
MECHANICAL PERFORMANCE	Great adaptability to weather conditions within -10°C and 45°C.
EASY INSTALLATION	From being more user-friendly, not having sharp edges nor absorbing heat from the sunlight.
LEAD & RUBBER FREE	We guarantee our panels are manufactured using lead-free and rubber-free additives.
100% RECYCLABLE	Our materials are 100% recyclable and environmental friendly.
MORE THAN 20 YEARS OF USEFUL LIFE, FREE OF CRACKS	The upper layer contains UV protection, which allows having a great durability even outdoors, maintaining its color and properties.
INNOCUOUS	Using a proper cleaning and maintenance to avoid mold formation, our panels ensure high levels of innocuousness making our panels ideal for food plants, agriculture and pharma industries.

3. PROFILE DIMENSIONS:

Distance between corrugations		Ridge Height		Panel Width		Number of Corrugations	Coverage		Overlap	
in.	mm	in.	mm	in.	mm		in.	mm	Side-Lap	End-Lap
9	228.6	1”1/16	27	39	990.6	5	36	914.4	1 Corrugation	2″ - 4″

DIMENSIONS OF MULTILAYER THERMO-ACOUSTIC PANEL
Klar TK9 AG Liner

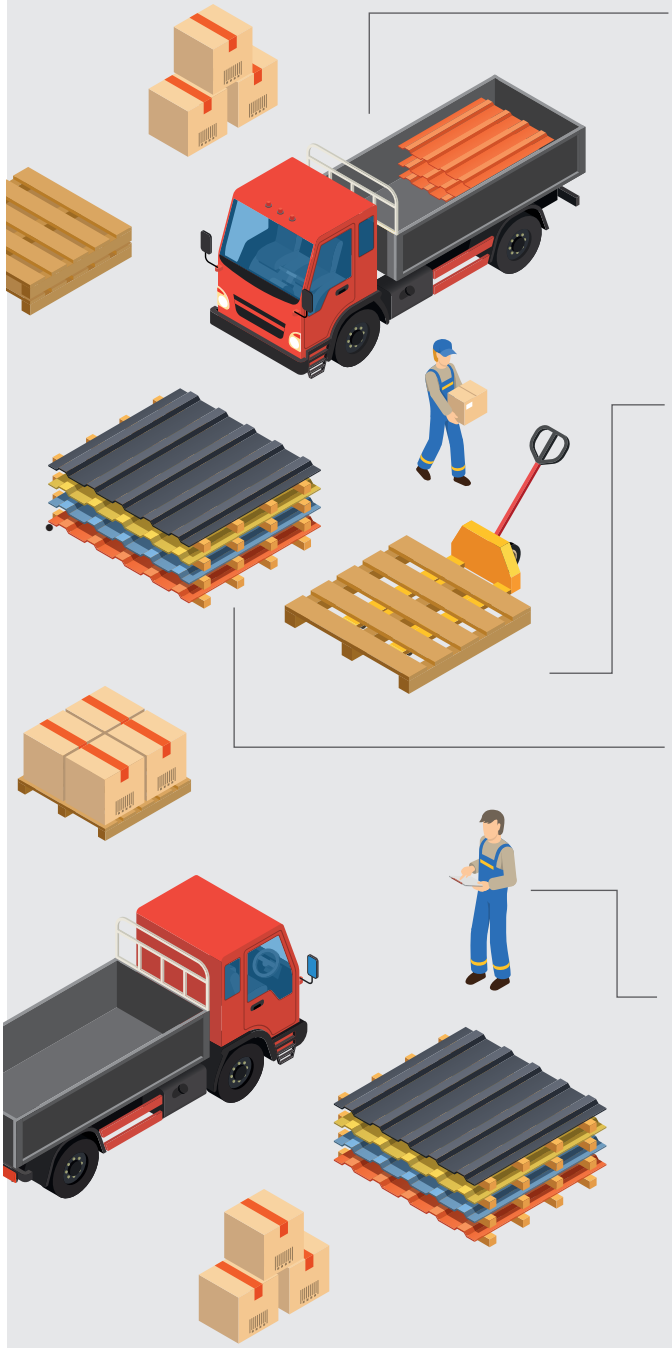


Note: Additional profiles available.
Please contact AmeriLux for more details.

4. SPAN (DISTANCE BETWEEN PURLINS)

Thickness		Weight		Ceiling Span		Wall Supports Distance	
in.	mm	lbs/sqft	Kg/m2	ft	m	ft.	m
1/16 5/64	1.50 2.00	0.573 0.783	2.60 3.55	4.00	1.22	4.00	1.22
				Ask for more details to your local seller			

5. TRANSPORTATION



As a first consideration for pickup or shipping, verify the transport unit has the appropriate dimensions to transport the panel size needed and properly secure panels in the truck bed. Any material damaged for this reason will not be covered by the warranty as damaged product.

Prior loading make sure the truck bed is free of oil, gravel and/or sharp elements that may damage the panels. It is recommended the use of wooden pallets -or similar- placed continuously along the entire length so that the load weight is evenly distributed.

Make sure there is separation between bundles in order to avoid friction and a potential damage to panels.

Avoid transporting other materials including metals, machinery, power tools, equipment, etc. in the same truck bed along with panels as prevention from accidental damage during the transfer of the unit.

During loading and unloading, a visual inspection must be carried out to ensure the quality of the product is as intended (free of damages). Proceed to secure load to guarantee a safe transport.

If there is any risk of direct exposure to natural or artificial heat sources during transport, it is recommended not to wrap the panels completely with stretch film -or similar- as it could affect the product by accumulation of internal heat

6. HANDLING, STORAGE AND CARE

• For the correct storage and care of Klar multilayer thermoacoustic panels, the following should be considered:

• Must be stored in a cool, enclosed environment avoiding wet or humid areas and direct sunlight (do not exceed 60°C / 140°F)

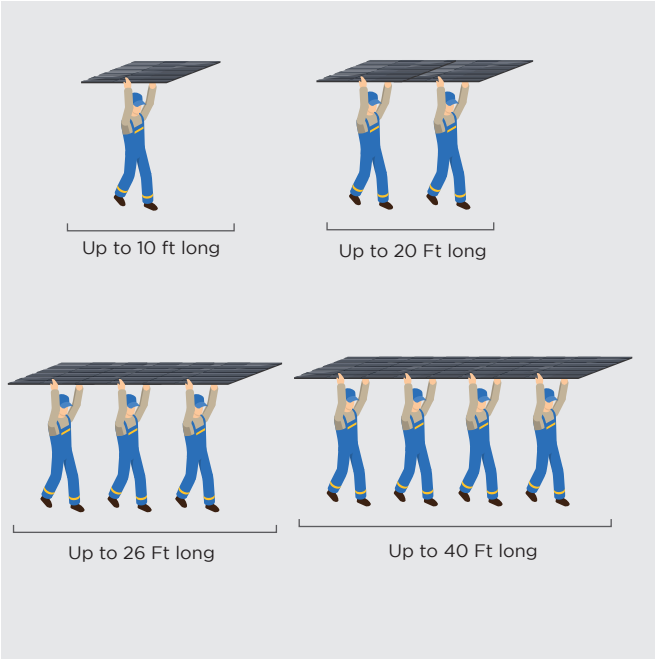
• Panels must rest on a level, even surface, never on sloped, uneven, or irregular ones.

• For proper protection and care, panels should not be placed directly on the floor. It is recommended to use wooden pallets or similar, ensuring even weight distribution, and separated from floor. Never store panels sideways or diagonally.

• The maximum height of the panel stack shall not exceed 1.50 meters (5 feet).

• Panels shall not be handled diagonally or from opposite corner ends (i.e. do not lay opposite ends on the ground) since it may cause ruptures, deformation or damage.

• Considerations for manual handling:



7. INSTALLATION OF PANELS

Before installation, check local building codes for relevant specifications and recommendations. Follow local codes at all times. The support distances depicted are based on the typical structural properties with sheet deflection by dead load and thermal expansion factors taken into consideration, according to customary construction practice for internal lining materials.
Instead of using longer panels, consider lapping panels to achieve the desired length.

Positioning the Panels:

A) The panels may be installed on ceilings with the corrugations running either parallel or perpendicular to the direction of the main supporting structure, provided that the purlins are prepared perpendicular to the corrugations.
B) When the ceiling is sloped, Klar recommends installing panels with the corrugation in the direction of the slope.
C) Never try to adapt the TK9 panel to a wider or narrower dimension by stretching & forcing the corrugations in or out during installation.
D) To minimize the possibility of warp and deformation, Klar recommends installing the panels after they have been acclimated. The panels should be stored inside the interior space in which they have to be installed until their temperature is equalized to the ambient temperature inside the structure. This way there will be no warp through drastic changes of thermal expansion/contraction.
E) When installing TK9 panels vertically on walls or horizontally sloped on ceilings, start installation at the bottom and work up toward the wall eave or ceiling top. Be sure to maintain the correct fastening sequence. Start with the bottom edge, at right or left side and proceed to the left (or right) and up.
F) For correct point fastening, refer to the fastening diagram on page 5/6.

Overlapping

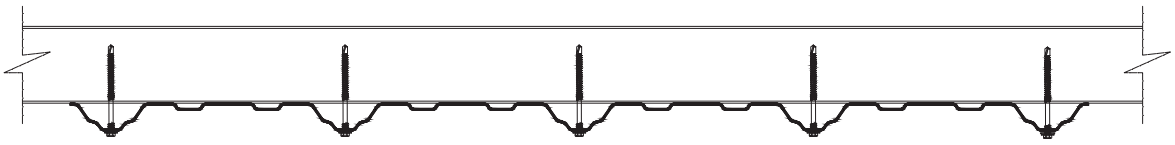
A) End-Lap: (at panel's short edges): Minimal recommended overlap - 2″ (50mm). Minimum distance of 2″ from each panel edge to the centerline of the support (line of fasteners). Always install the lower panels array first, and lap with the upper panels, so the drip down the slope or wall does not penetrate into the ceiling or wall cavity and wet the insulation.
B) Side-Lap: One corrugation.
C) Panel's Edge Overhang: The panel's edge should not extend more than 4" (100 mm) from the centerline of edge support on both sides.
D) Overlap Seals: In wash areas or extremely wet conditions, Klar recommends installation of butyl-rubber sealing strip along the whole length of side lap or end lap corrugations.

Arching Radius

When lining a curved ceiling, it is possible to set the panels against a curved (concave) structure so they will arch within their range of elasticity, without inducing undue stress. The minimal radius recommended for such an arch is 20 ft. (6.00 m).

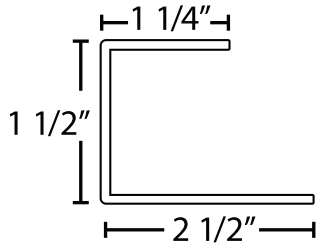
Wall and Ceiling Fastener Location:

A) It is recommended to fasten at the ridge of the sheet
B) Do not overtighten the fasteners; doing so could cause warping.
C) We recommend using Klar self drilling screws:
i. White stainless steel
ii. 14mm EPDM washer
iii. Automatic pre-drilling expansion holes

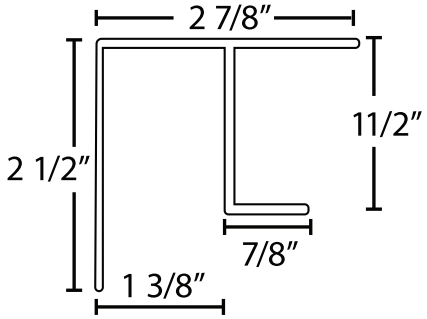


8. KLAR PVC TRIMS

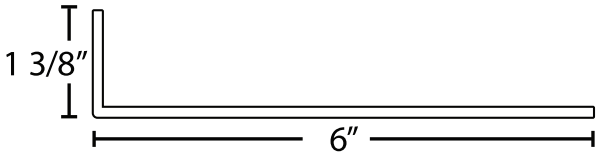
Available in 12′ & 16′ lengths



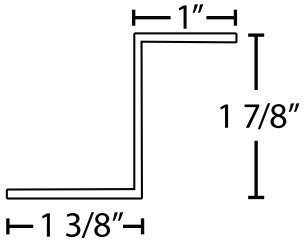
J Trim
TKJ



F & J Trim
TKFJ



Fascia Cover Trim
TKCover



Base Trim
TKBase

9. KLAR SCREW

Klar Screw
2-1-16
Klar Screws are Available in Stainless Steel, Coated & Mini Drill Point