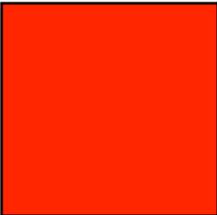


A close-up photograph of a wooden architectural facade. The image shows several vertical wooden panels with a warm, natural wood grain. The panels are arranged in a staggered, overlapping fashion, creating a textured and layered appearance. The lighting is soft, highlighting the natural variations in the wood's color and grain. A dark grey diagonal shape is overlaid on the right side of the image, serving as a background for the text.

Ambientā
Architectural Systems
Façade

Acclimatizing Wood
Panels



Acclimatizing

Ambienta Wood Panels

Wood Acclimatization



Importance of Acclimatization

All wood products are hygroscopic and therefore absorb and give off moisture constantly. The rate depends entirely on the environmental conditions. Wood products expand as they absorb moisture and contract as they give off moisture. This expansion and contraction, if left uncontrolled, can cause wood panels to move forcing the panels to bow and warp within the Ambienta frame and affecting the uniformity of the reveals.

Acceptable building climate conditions

The Architectural Woodworking Institute (AWI) defines a controlled environment suitable for the acclimatization and installation of wood panels as having a Relative Humidity of 25-55%, and a Temperature Range of 55-85 degrees Fahrenheit. Environmental conditions outside of these limits are unacceptable and will void the warranty of Ambienta wood panels.

Responsibility for Acclimatization falls in part, on each of us; Ambienta, the Installer, the General Contractor, the Architect and the Building Owner.

Ambienta provides wood panels within acceptable tolerances for moisture content, with the specified wood substrate, specified veneer and specified finish quality.

The **Installer** receives, stores and installs the panels in a controlled building environment. He is responsible for insuring the panels are acclimatized to the building environment prior to installation. Environmental conditions that do not conform to AWI specification must be corrected prior to installation of the wood panels.

The **General Contractor** is responsible to provide an environment that meets the AWI standards for relative humidity and temperature.

The **Architect** is responsible for the overall project design and specification of appropriate HVAC equipment to maintain the environmental conditions required for the stabilization of wood products.

The **Building Owner** bears the responsibility for maintaining the correct environmental conditions for the stabilization of wood products.

Wood Acclimatization

The moisture content of wood is directly related to the humidity and temperature of the surrounding air. The equilibrium moisture content (EMC) occurs when the wood has reached an equilibrium with its environment and is no longer gaining or losing moisture.

Table 1 provides EMC values for a fairly representative range of atmospheric conditions that wood is likely to be exposed to. Values in this table are applicable to wood of any species for most practical purposes.

The EMC table is a guide for determining whether or not the conditions of the construction area are suitable for receiving and installing Ambianta wood panels. The moisture content of Ambianta wood panels when they are shipped is 8-13% at 70 degrees F.

A moisture meter is used to determine the moisture content of Ambianta wood panels. A minimum of 12 measurements should be taken from randomly selected panels.

NOTE: The pins on the meter will produce small holes in the panel. Measurements should only be taken on the unseen edges of the panels so as not to mar the exposed surface.

Measurements of the moisture content should be recorded, and an average Moisture Content percentage established. For your convenience a humidity and temperature reporting form is included at the end of this document.

The following chart is used to estimate the equilibrium moisture content of the Ambianta panels based on the temperature and relative humidity of the area where the Ambianta Facade system is to be installed: with an ambient air temperature of 70 degrees F, and with a relative humidity 50%, the Ambianta wood panels must reached a stabilized moisture content of 9.2% prior to installation.

Wood Acclimatization

Table 1

Relative Humidity %		Ambient Air Temperature - degrees Celsius and Fahrenheit (Celsius rounded to nearest degree)														
		-1	4	10	16	21	27	32	38	43	49	54				
C:		30	40	50	60	70	80	90	100	110	120	130				
F:		86	104	122	140	158	176	194	212	230	248	266				
	5	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.0				
	10	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.1	2.0				
	15	3.7	3.7	3.6	3.6	3.5	3.5	3.4	3.3	3.2	3.0	2.9				
	20	4.6	4.6	4.6	4.6	4.5	4.4	4.3	4.2	4.0	3.9	3.7				
	25	5.5	5.5	5.5	5.4	5.4	5.3	5.1	5.0	4.9	4.7	4.5				
	30	6.3	6.3	6.3	6.2	6.2	6.1	5.9	5.8	5.6	5.4	5.2				
	35	7.1	7.1	7.1	7.0	6.9	6.8	6.7	6.5	6.3	6.1	5.9				
	40	7.9	7.9	7.9	7.8	7.7	7.6	7.4	7.2	7.0	6.8	6.6				
	45	8.7	8.7	8.7	8.6	8.5	8.3	8.1	7.9	7.7	7.5	7.2				
	50	9.5	9.5	9.5	9.4	9.2	9.1	8.9	8.7	8.4	8.2	7.9				
	55	10.4	10.4	10.3	10.2	10.1	9.9	9.7	9.5	9.2	8.9	8.7				
	60	11.3	11.3	11.2	11.1	11.0	10.8	10.5	10.3	10.0	9.7	9.4				
	65	12.4	12.3	12.3	12.1	12.0	11.7	11.5	11.2	11.0	10.6	10.3				
	70	13.5	13.5	13.4	13.3	13.1	12.9	12.6	12.3	12.0	11.7	11.3				
	75	14.9	14.9	14.8	14.6	14.4	14.2	13.9	13.6	13.2	12.9	12.5				
	80	16.5	16.5	16.4	16.2	16.0	15.7	15.4	15.1	14.7	14.4	14.0				
	85	18.5	18.5	18.4	18.2	17.9	17.7	17.3	17.0	16.6	16.2	15.8				
	90	21.0	21.0	20.9	20.7	20.5	20.2	19.8	19.5	19.1	18.6	18.2				
	95	24.3	24.3	24.3	24.1	23.9	23.6	23.3	22.9	22.4	22.0	21.5				
	98	26.9	26.9	26.9	26.8	26.6	26.3	26.0	25.6	25.2	24.7	24.2				

Wood Acclimatization



Acclimatization Record

CONTRACTOR:
PRODUCT NAME:
PRODUCT ADDRESS:

1. See Table 1 on previous page. Determine the target values of the interior environment and note below.

Target Values

Temperature (f):	Relative Humidity (%):	Moisture Content:
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2. During acclimatization period, record temperature (f) and relative humidity % readings from digital hygrometer. (Data will establish the acceptance moisture content range for the installation.)
3. Three to five panels should be randomly selected and monitored during acclimatization period.
4. Using a moisture meter, take three moisture content readings along the edge of each panel and record the average of the three values.
5. As the Ambienta wood panels reach equilibrium, the moisture content readings will stabilize at the proper temperature and relative humidity values.
6. DO NOT begin installation of panels until they have reached equilibrium moisture content in the target range.

Date	Time	Temp	RH(%)	Moisture Content (Average of 3 readings)				
				Panel 1	Panel 2	Panel 3	Panel 4	Panel 5



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Façade

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