MYTHS AND FACTS ABOUT SYNTHETIC THATCH

WINDS AND HURRICANES

MYTH	FACT	POINTS TO CONSIDER	RECOMMENDA
“It withstands Category 5 hurricanes.”	Some synthetic thatch products on the market tear very easily when pulled by hand, and we have recorded evidence of these results.	Will it withstand the force of a hurricane, which is more intense, powerful, and prolonged than a simple pull by hand? Is replacement of the thatch guaranteed in writing if it fails to withstand the hurricane?	We recommend conducting a simple test of the synthetic thatch to check its tear resistance. It would also be advisable to specify this resistance in the written warranty and explain what happens if the material fails.
“Approved to withstand winds exceeding 200 miles per hour (320 km/h), Category 5”	The technical reports explicitly state that the material is not approved for use in High-Velocity Hurricane Zones (HVHZ) and that the report does not constitute a commercial warranty of resistance to Category 5 or stronger hurricanes.	What did the Florida Building Commission actually approve? Why are those zones excluded?	The resistance of a roof covering depends on its fastening system, the strength of its structure, and the resistance of the synthetic thatch, among other factors. It would be advisable for anyone making such claims to state in the warranty that the product withstands all types of hurricanes, along with the obligations assumed if the material fails to perform as claimed.

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The hurricane resistance of a palapa covered with synthetic thatch depends on several factors, including its structure, the physical and mechanical properties of the synthetic thatch, the fastening system, installation conditions, and even wind exposure associated with its geographic location.

Each project must be evaluated according to its location—whether on the coast, by the sea, outdoors, or in an enclosed area—as well as its size, shape, structural elements, orientation, and other factors.
Synthetic thatch requires no maintenance, but inspections are recommended to assess possible damage after storms or hurricanes.

Under real conditions, hurricanes produce sustained winds that can last between 2 and 8 hours (at least), along with heavy rain and windborne objects that strike the materials and fastening systems. This is significantly different from isolated, short-duration gusts.

The aging of synthetic thatch also plays an important role and depends on several factors, including latitude, altitude, orientation, exposure to salt, constant moisture, and sea spray. Consequently, every roof ages differently according to its location.
There is no general standard that can be applied to determine the lifespan of synthetic thatch or its resistance to the impact of a hurricane.

MYTHS AND FACTS ABOUT SYNTHETIC THATCH

FIRE AND SMOKE

MYTH	FACT	POINTS TO CONSIDER	RECOMMENDA
“It has a Class A rating under the ASTM E108 standard.”	The test evaluates fire performance on a roof covering, but it is not an absolute guarantee that a product will never ignite or will withstand any fire. Fires vary in intensity and temperature, and synthetic thatch is made of polymers that are not inherently noncombustible.	Does offering Class A synthetic thatch mean it is guaranteed not to burn when exposed to fire? What is the scope of the risk protection being offered to the customer?	We recommend performing a simple test to verify how the synthetic thatch behaves when exposed to fire and assess its actual resistance. Although laboratory tests provide a useful benchmark, the written warranty should ideally explain what happens if the thatch burns.
“The flame goes out when the torch is removed.”	Applying a torch reveals that many products on the market release large amounts of smoke, an issue that must be considered because of its potential health effects.	Does synthetic thatch remain undamaged when exposed to fire? How much smoke does it release when exposed to fire? How harmful is that smoke to health?	We recommend observing smoke emissions directly, in person, when the thatch is exposed to fire. The hot gases emitted by dense, abundant smoke are toxic and, when inhaled, can cause severe respiratory tract injuries or even death.

MYTHS AND FACTS ABOUT SYNTHETIC THATCH

FIRE AND SMOKE

Although flame retardants make ignition more difficult and can reduce the spread of fire, they do not necessarily make synthetic thatch noncombustible—even when some manufacturers advertise a Class A rating under ASTM E108. This standard evaluates roof-covering performance under various external fire exposures, including surface flame spread, intermittent flames, and burning brands. It does not mean that synthetic thatch is noncombustible or that the roof is guaranteed against every fire.

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ASTM E108 is not designed to measure smoke quantity or toxicity, which should also be considered when assessing material safety.
Chemicals used to inhibit fire and reduce its spread may produce toxic, asphyxiating gases when exposed to fire, reduce oxygen concentration, and release carbon monoxide, hydrochloric acid, ammonia, arsenic, carbon dioxide, and cyanide, among other substances.
The rapid spread of smoke and hot gases makes breathing difficult and can cause severe burns to the lungs and respiratory tract, potentially resulting in death.

Consequently, two essential requirements should take priority:

- Prevent the heat source from spreading the fire, allowing more time for evacuation and helping firefighting efforts.
- Protect the health of people and other living beings by minimizing the dense smoke and toxic gases generated when the material is exposed to fire.

Synthetic thatch is generally manufactured using blends of additives such as flame retardants, pigments, UV protectants, and high-density polyethylene (HDPE) or PVC. These are plastic materials and, by their nature, are combustible.

MYTHS AND FACTS ABOUT SYNTHETIC THATCH

LIFESPAN / CERTIFICATIONS

MYTH	FACT	POINTS TO CONSIDER	RECOMMENDA
“It has a 50-year life expectancy.”	Synthetic thatch did not exist 50 years ago. No installations have been in service for that long.	If it is only a projection, Is there any way to demonstrate it? Is it guaranteed in writing?	A life expectancy is only a reasonable possibility of a future outcome. Anyone offering this claim should therefore be asked to document it in writing in the warranty issued upon purchase.
“It is certified by a laboratory.”	Laboratories expressly state that results apply only to the samples tested and the conditions under which testing was performed, and do not constitute a guarantee of how the product will perform in real-world conditions.	If the product burns, fails to last 50 years, or a hurricane causes the synthetic thatch to collapse: Who is responsible for the damage? The laboratory or the supplier?	Ask the supplier to clarify whether the laboratory report guarantees the certified performance and, if so, recommend that this be documented in the written warranty.

A palapa covered with synthetic thatch tends to reduce insurance premiums and add value to the property, helping offset the investment cost. Above all, it offers peace of mind and safety in the event of a fire, helping prevent a major disaster.