## 安全樓梯,安全嗎?

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在我們的日常生活中,大樓樓梯的設計使用,往往被我們所忽略?很少有人認真思考其安全的重要 性。特別是當意外災難發生時,安全逃生樓梯可能是生死攸關的唯一路徑。然而,在台灣長期以來大 樓的梯廳,都是使用磁磚作為樓梯的鋪面。這種普遍又看似合理的設計,如在危急情況下使用,安全 樓梯,真的安全嗎?

這裡我將跟大家探討樓梯磁磚鋪面,在緊急疏散時可能引發的安全隱患,並引用先進國家的建築法規 和安全標準,為如何打造真正安全的逃生樓梯提供專業見解。

在台灣,一般大樓的逃生樓梯都鋪設磁磚,這種設計在緊急疏散時非常危險!想想看,火災時消防灑 水系統啟動,磁磚表面遇到水,立即變得很滑。人們慌亂中逃生,很容易摔倒跌傷,造成踩踏事故。 地震時,磁磚鋪面也容易破裂剝離,產生銳利碎片,在人群驚慌匆忙下樓,赤腳逃生的人,這個時候 樓梯間可能血跡斑斑,引發連環摔倒事故,形成樓梯間的雍塞阻塞。

德國、英國和美國這些國家的建築法規對樓梯有嚴格要求:首先,樓梯鋪面材質表面必須防滑性,目 前全球地材防滑的標準,幾乎都是依據DCOF地板防滑測試方法。其次,樓梯的踏階端面要有清楚的 顏色標示,提供明顯的視覺對比,降低絆倒踩空的危險。美國國家消防協會(NFPA),和德國的DIN 18040標準,都要求在每個樓梯踏步的前緣,必須有鮮明的視覺對比色帶,使每個踏階位置清晰可見, 特別是在下樓梯時。

安全的樓梯是讓我們在任何時間情況下使用,都是安全無虞的。真正的安全樓梯應該要採用止滑的鋪 面,在階梯的前緣也要有明顯色帶,即使在煙霧中也能辨識階梯位 置。這些看似小細節的設計,在 危急時刻可能就是救命的關鍵。

安全樓梯的重要意義,和大樓的安全結構設計,都是保障我們居住的生命安全。太格長期在地材領 域琢磨了40多年,我們有義務、有責任將我們所知道的安全觀念,提供給我們的客戶。生命無價, 從改變樓梯材料和清晰的色帶止滑設計開始,我們大樓的逃牛樓梯,才能真正稱得上是"安全梯"。



## **Emergency Staircases, Are They Really Safe?**

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In our daily lives, the design and use of staircases in buildings are often overlooked. Few of us seriously consider the importance of their safety.

Especially when unexpected disasters happen, emergency staircases can become a critical life-saving route.

However, in Taiwan, tiled surfaces have long been commonly used for stair flooring in buildings.

While this design seems reasonable and widely accepted, when it comes to emergency situations, are these so-called "emergency staircases" truly safe?

Today, I will discuss the potential safety hazards of using tiled surfaces on staircases in highrise buildings during disasters.

I will also reference building regulations and staircase safety standards from advanced countries to provide professional insights on how to create truly safe emergency staircases.

In Taiwan, it's very common to see tiled surfaces used on staircases in buildings, but during an emergency evacuation, this design can actually be very dangerous!

Just imagine when the building's fire sprinkler system goes off, or when rainwater leaks into the stairwell, those tiled steps quickly lose their grip once they get wet.

Without enough lighting, it becomes even easier for people to slip and fall.

And during an earthquake, the shaking can cause the tiles to crack and break into sharp pieces.

In the chaos of an emergency, people rushing downstairs, often barefoot and panicked, could easily get hurt as soon as they reach the stairwell.

Injuries could quickly cause a bloody scene, trigger a chain reaction of falls, and create dangerous blockages in the stairwell which is a truly terrifying situation.

Let's take a look at building regulations in countries like Germany, the UK, and the US, they have strict requirements for staircases.

First, the surface material used on stairs must be slip-resistant.

Today, the global standard for flooring slip resistance mostly follows the DCOF test, which measures the Dynamic Coefficient of Friction.

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Second, the edge of each stair tread needs to be clearly marked with contrasting colors.

This strong visual contrast helps lower the risk of tripping or missing a step.

Both the National Fire Protection Association (NFPA) in the US and Germany's DIN 18040 standard require a bright, contrasting strip on the front edge of every stair tread to make each step clearly visible, especially important when going downstairs.

The staircases in regular commercial or residential buildings are meant to be safe for us to use, no matter the situation.

A truly safe staircase should be built with slip-resistant materials, and there should also be a clearly visible strip along the front edge of each step.

This way, even in smoke-filled conditions, people can still recognize where each step is.

These small design details might seem minor, but in an emergency, they can make all the difference and could even save lives.

The importance of safe staircases, along with the overall structural safety of a building, is essential to protecting our lives.

At Semiflor, with over 40 years of experience in the flooring industry, we believe it is our duty and responsibility to share our knowledge about safety with our clients.

Life is priceless, and it all starts with safer materials and clear anti-slip markings on staircases.

Only then can the emergency staircases in our buildings truly be called "Emergency Staircases."

