

米拿股份有限公司

MINA DESIGN CONSULTANT



環保材料 聲學建材

OEKO
TEX®

簡介

Introduction

- 2017年開始將消音板材引入台灣市場
- 2018年起陸續研發、設計消音板產品
- 2023年導入先進切割機台，在地生產化
- 2023參加「台灣國際室內設計・材料大展」

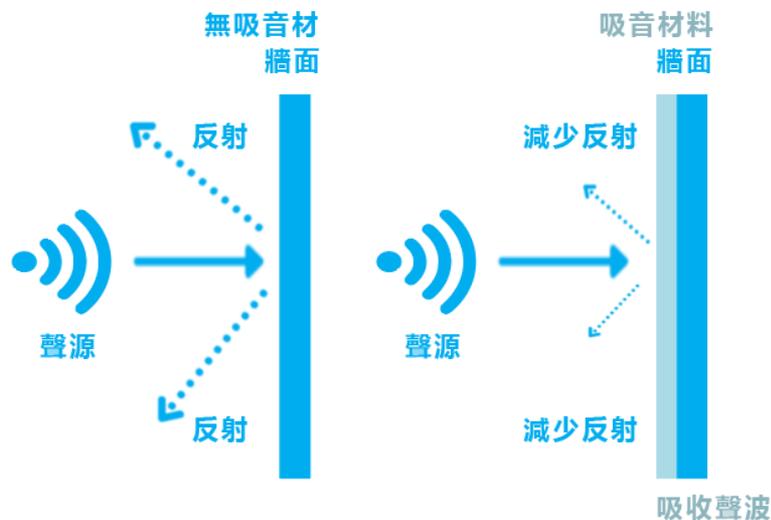
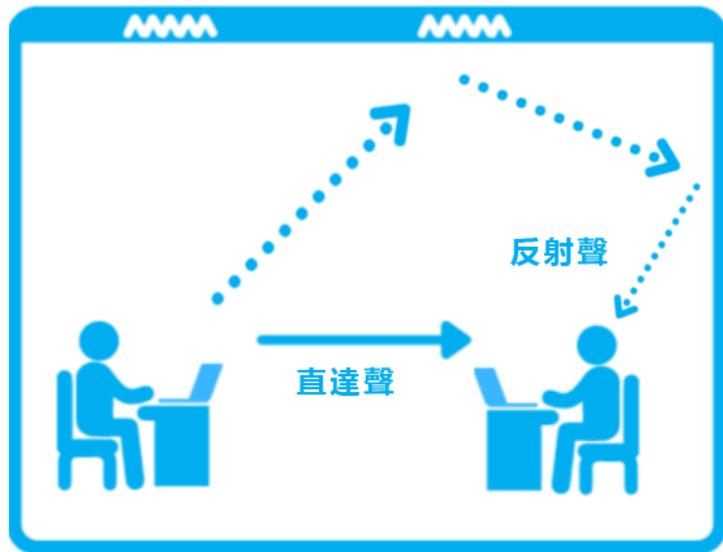
MINA致力於產品創新開發，堅持使用具綠色認證的環保材料提供一種經過科學研究的設計，來解決聲學舒適度問題，以改善使用者的健康和福祉

空間內為什麼會有回音?

聲音是由物體的振動產生的，它以波的形式傳播，傳播過程中，會遇到各種障礙物，如牆壁、天花板、地面等，障礙物會將聲音反射回去，形成回音(左圖)。

怎麼減少或消除回音?

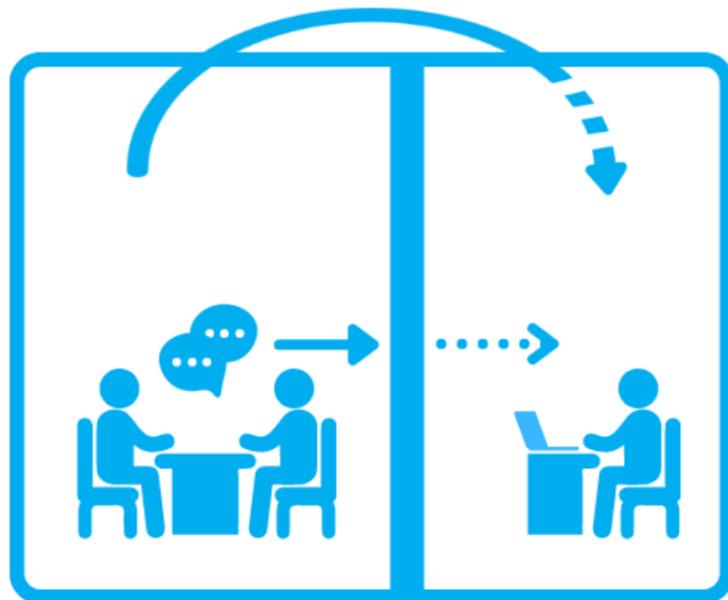
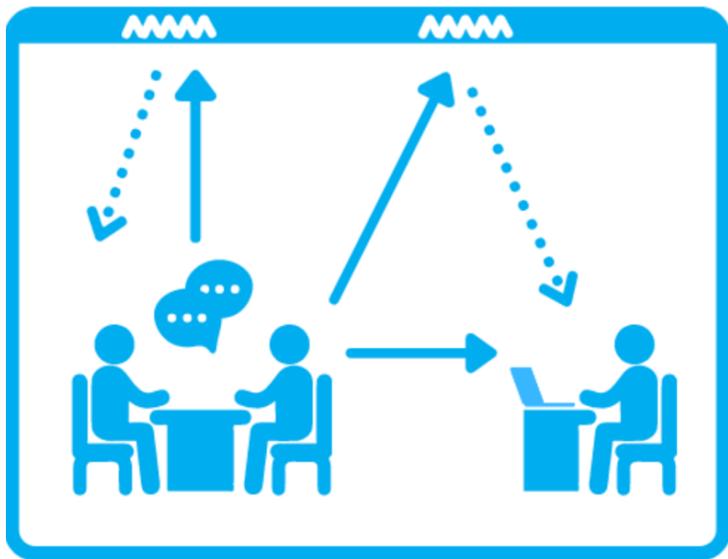
空間內使用多孔性材料，吸音材料會吸收聲音的能量，使聲音減弱。聲音的反射和吸收取決於障礙物的形狀、大小、表面材料以及障礙物與聲源的距離和角度(右圖)。



吸音和隔音有什麼差別？

吸聲量是衡量表面吸收聲音量的指標，剩餘的聲音被反射回空間，如果沒有吸音表面，房間就會變得吵雜和混響，因為聲音不斷「彈跳」（左圖）。

隔音是衡量聲音穿過建築構件時的限制效果的指標，隔音對於玻璃、隔間和天花板系統非常重要，在這些系統中，聲音從一個空間到另一個空間的傳播需要受到控制(右圖)。



吸音率與吸音材料定義

吸音率(NRC)數值介於0~1之間，後者意味著所有聲音都被表面吸收，因此沒有聲音回到房間。

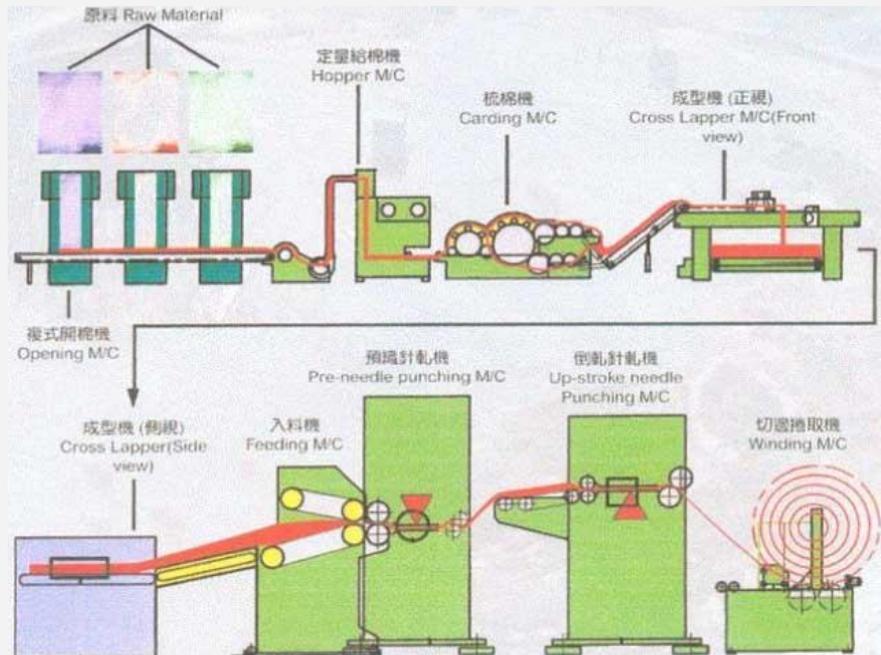
吸音率大於0.2的材料稱為吸音材料，由6個頻率測試吸音表現，
125Hz、250Hz、500Hz、1000Hz、2000Hz、4000Hz
(實驗室報告會將6個頻率的平均值，標為NRC)
(頻率分為低、中、高頻，請注意頻率需求為哪一個波段)

此外，要特別注意，除了材質本身會影響吸音係數之外，吸音材料的安裝方式不同也會影響吸音能力。

MINA吸音材料簡介

Introduction to MINA sound-absorbing materials

- 聚酯纖維板(針軋製成)
- 多孔性材料
- 快速消耗聲波能量
- 板厚 9mm、12mm
- 產品吸音率NRC:0.25~1.0
- 80種色樣



標章介紹

Mark introduction



OEKO-TEX

全球著名的紡織產業標章

檢測紡織品是否殘留影響人體健康之有害物質，如紡織品帶有STANDARD 100標籤，即每根線及其他輔料，都已通過有害物質檢驗。驗證範圍包含，生產過程、人類健康、廢料處理



Global Recycled Standard

全球回收標準 (GRS)

產品至少要含有20%的原材料，是由回收纖維組成，並且是100%無污染的產品。管制生產製造中污染防制與處理，以及化學品限制等均加強規範。取得GRS驗證標示，產品原料需至少需含有50%的回收成分。

推薦商品 - 牆面

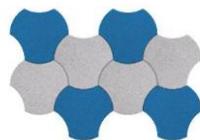
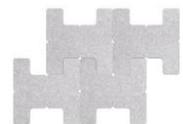
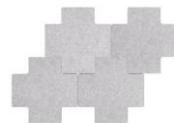
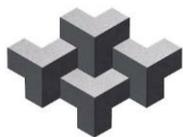


型號：CS04-A31六角形
尺寸：W 300*H260 (mm)

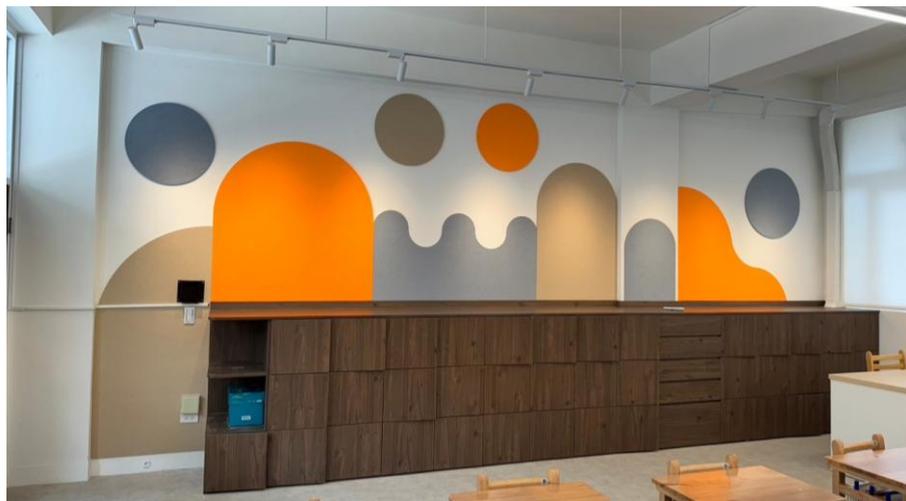


型號：CS04-A08方形
尺寸：W300*D300 (mm)

特殊造型 - 牆面



牆面 平貼造型

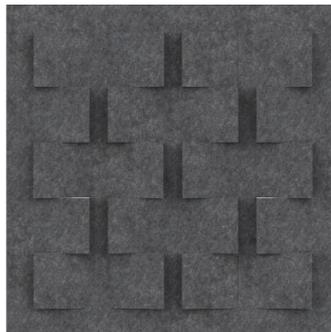
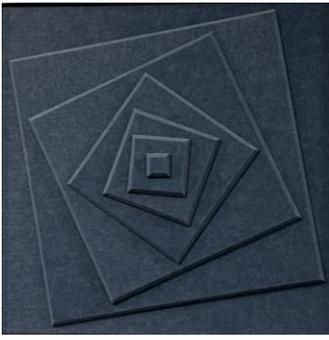
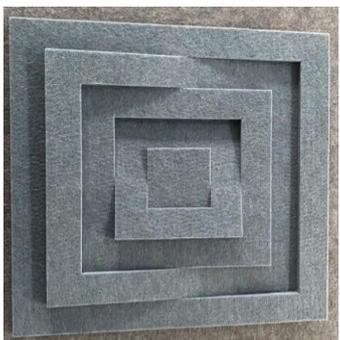
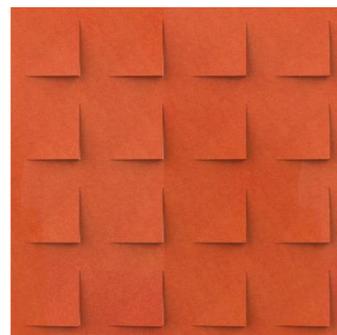
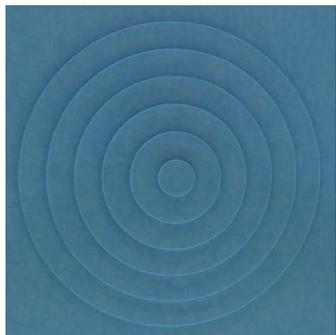






特殊造型款式 3D半立體造型款式

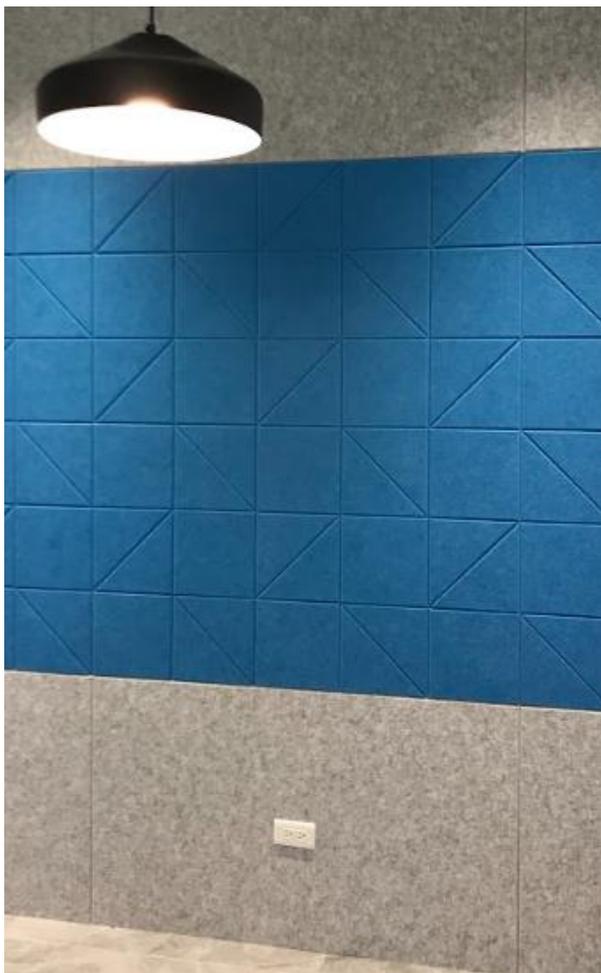
可針對客戶需求訂製尺寸樣式
半立體造型除了增加吸音面積，還具美感



牆面 浮雕造型

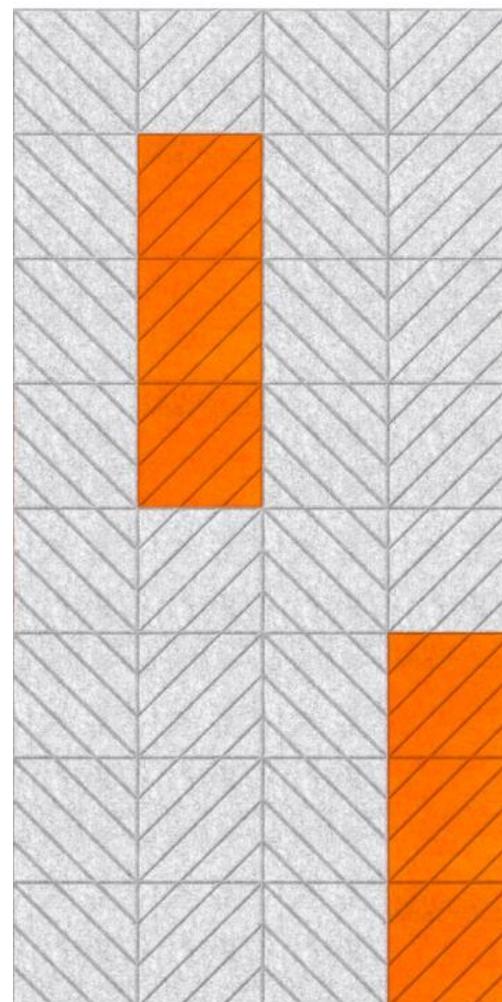
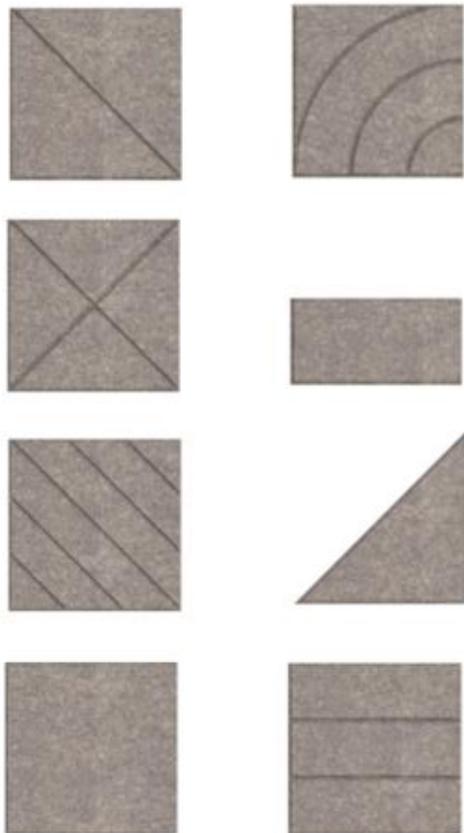


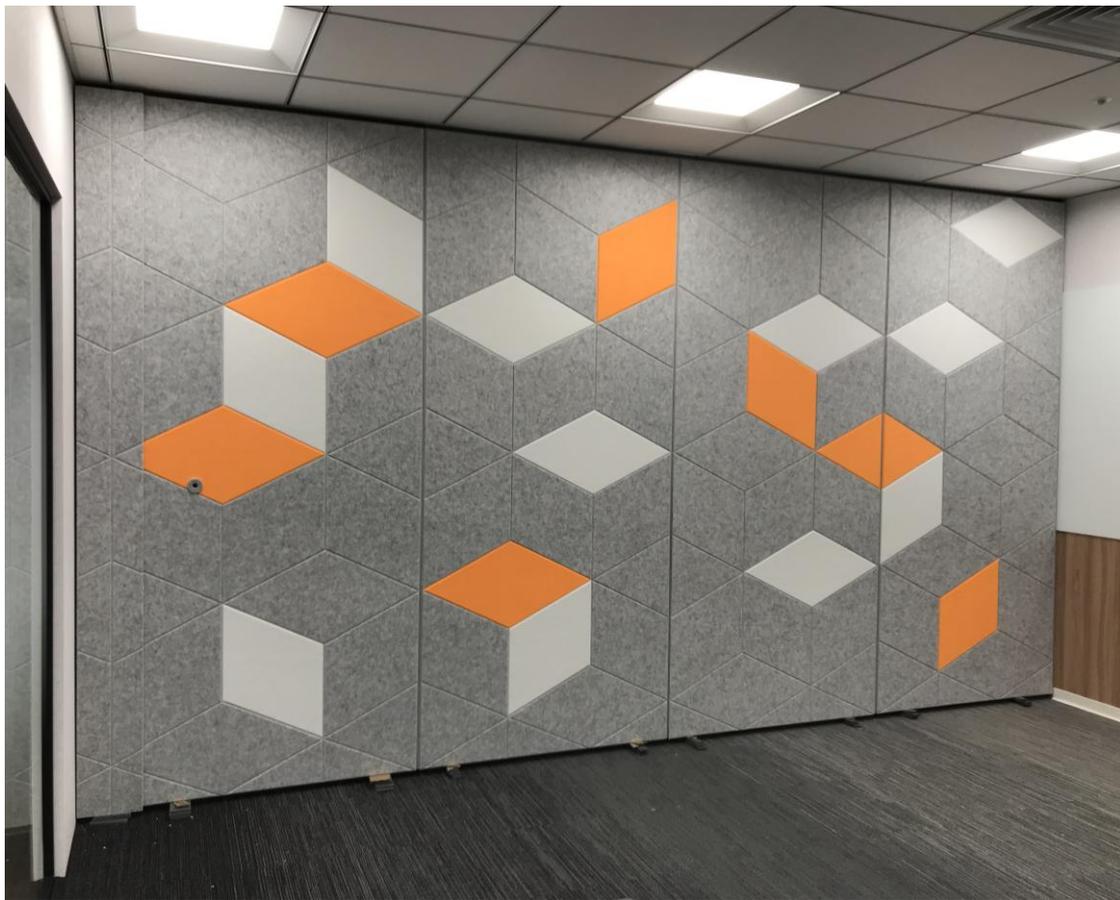
牆面 Wall-刻溝



組合參考：

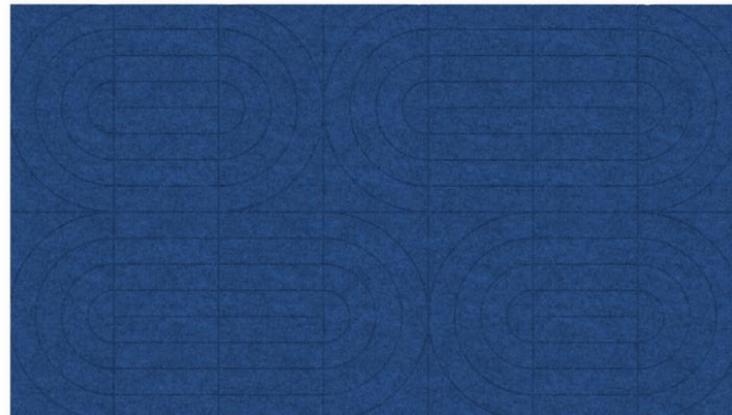
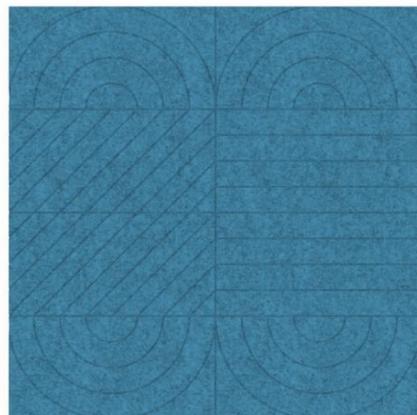
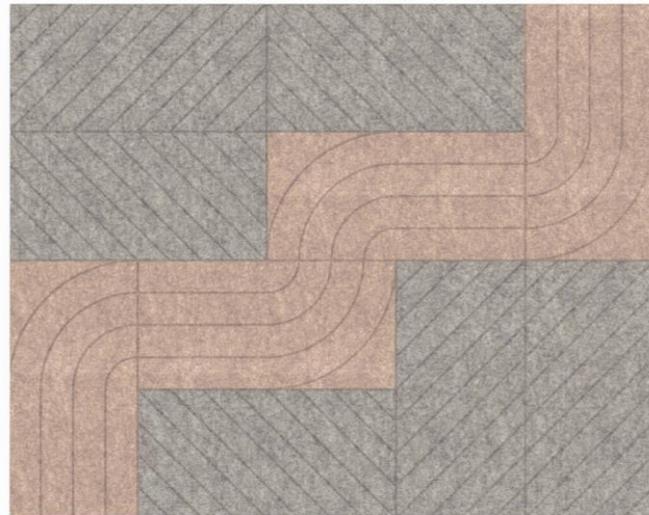
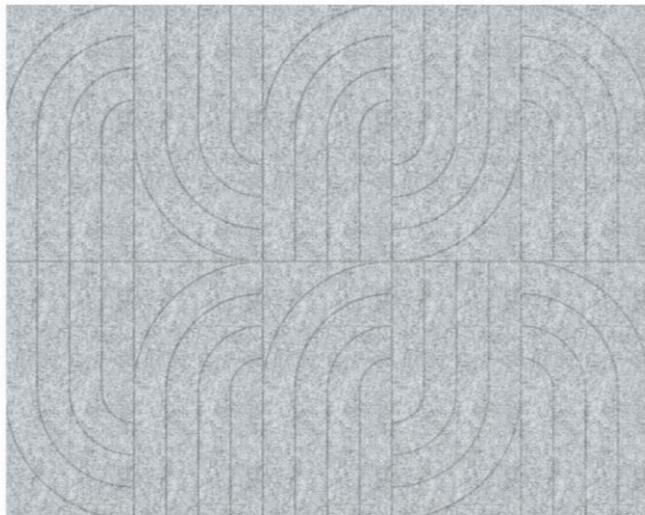
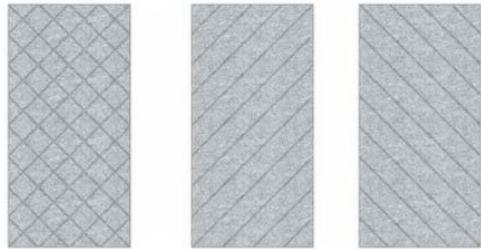
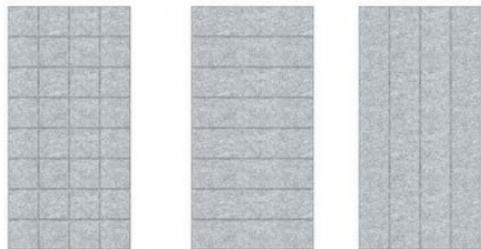
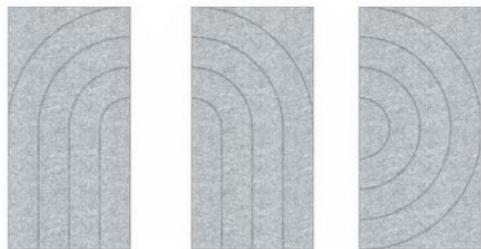
W 300*H 300 (mm)





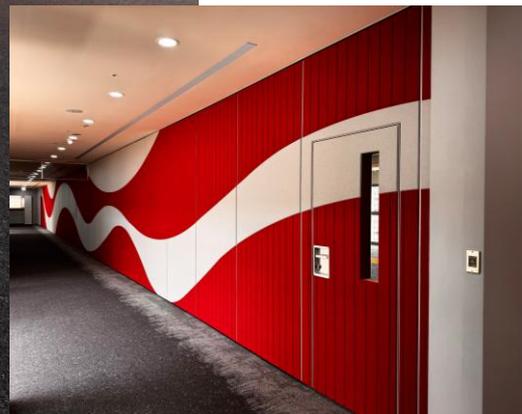
組合參考：

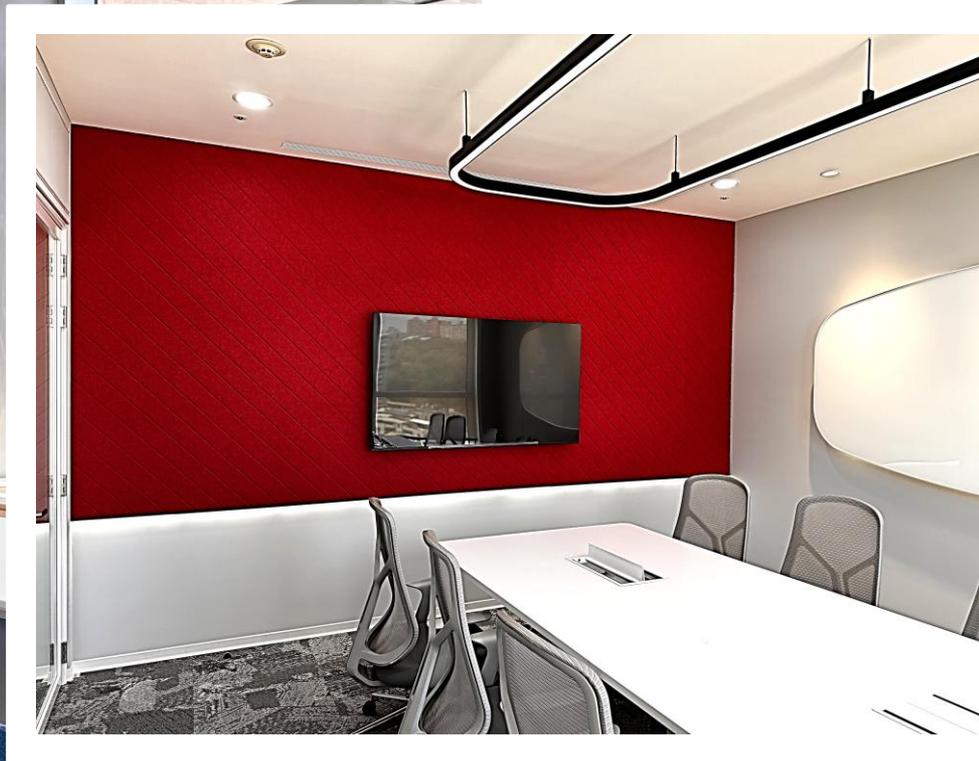
W 1200*H 600 (mm)



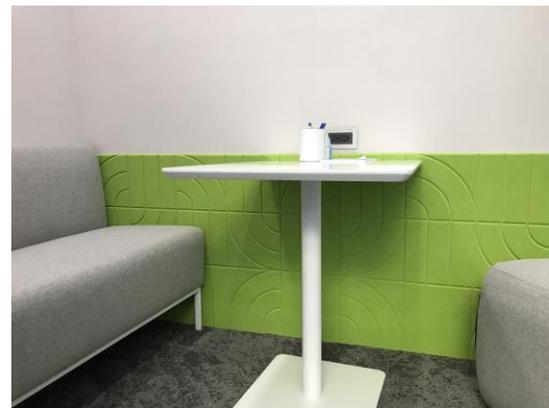
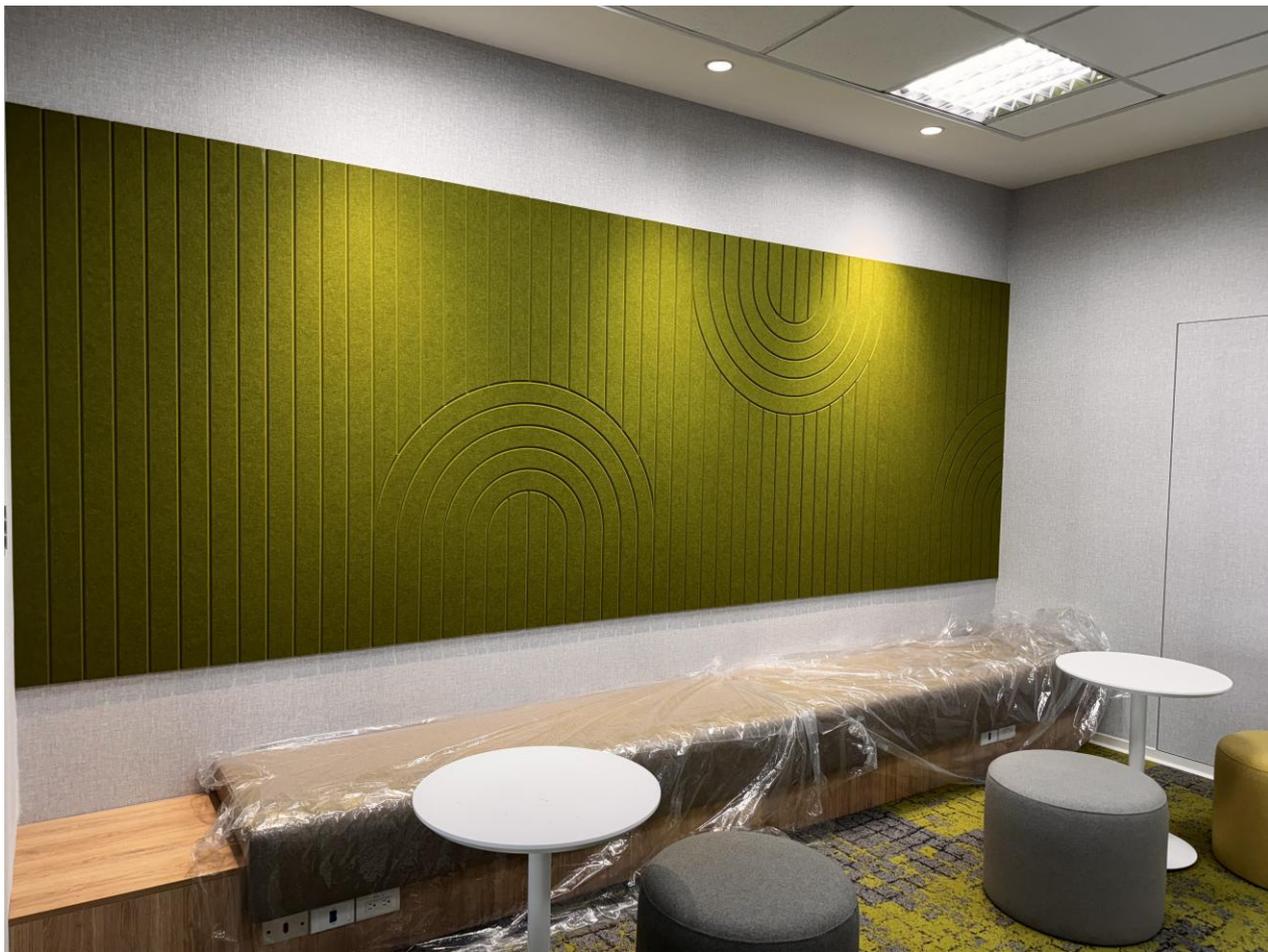


牆面 Wall-刻溝

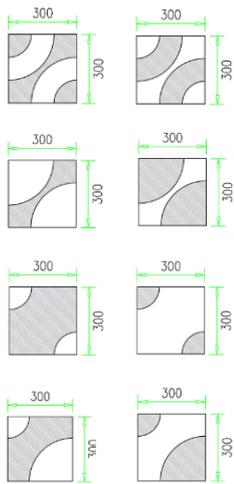








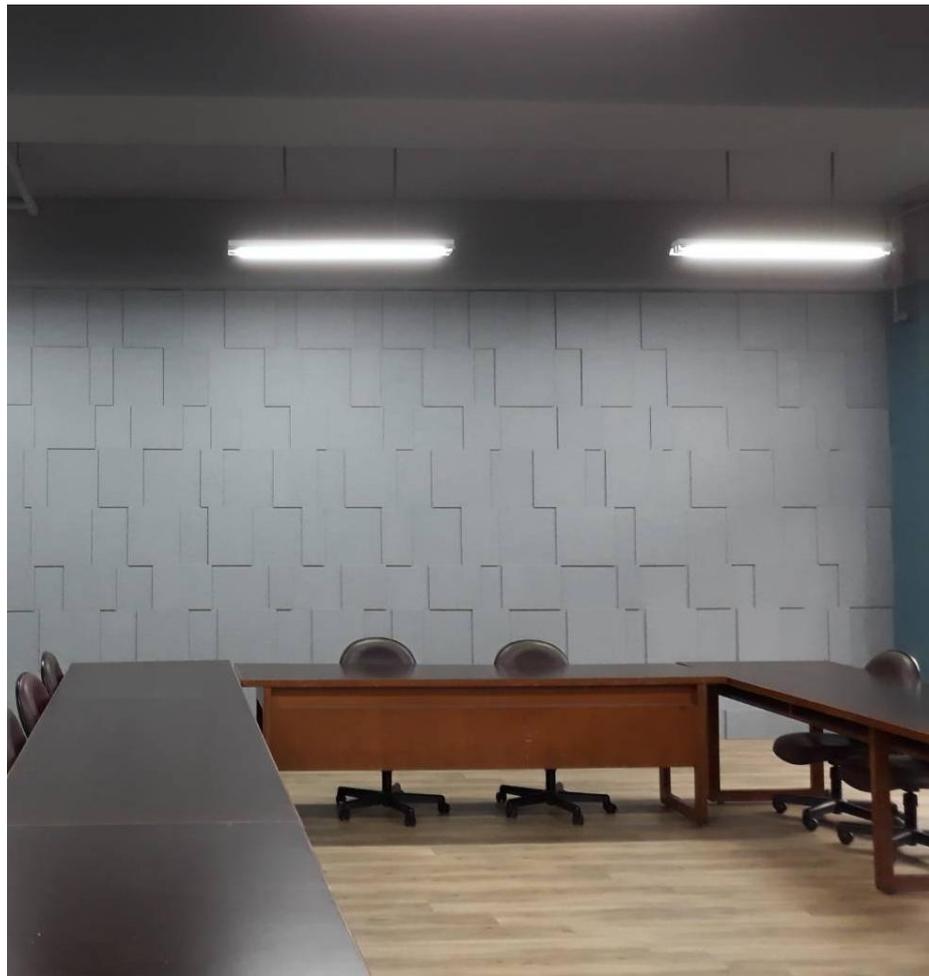
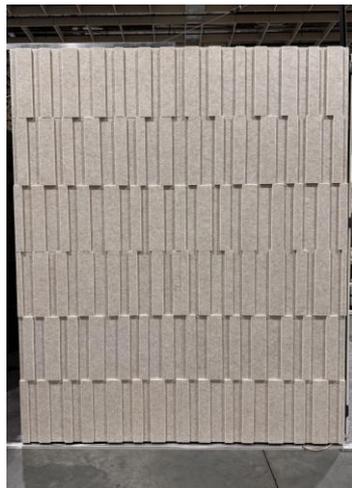
搭配組合

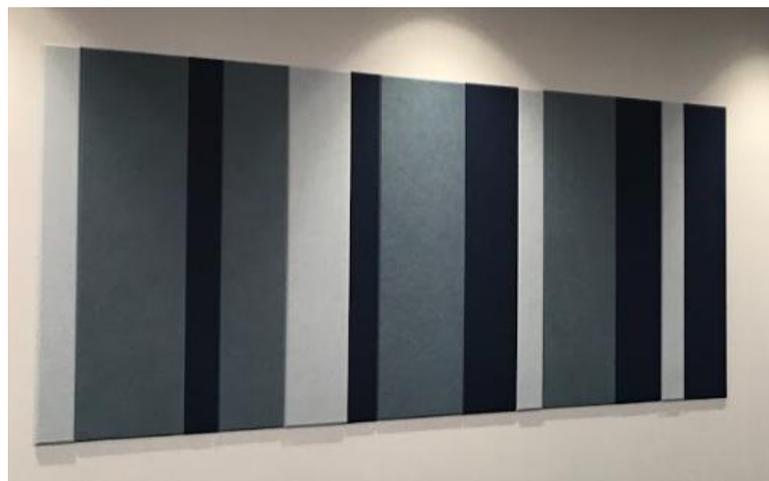
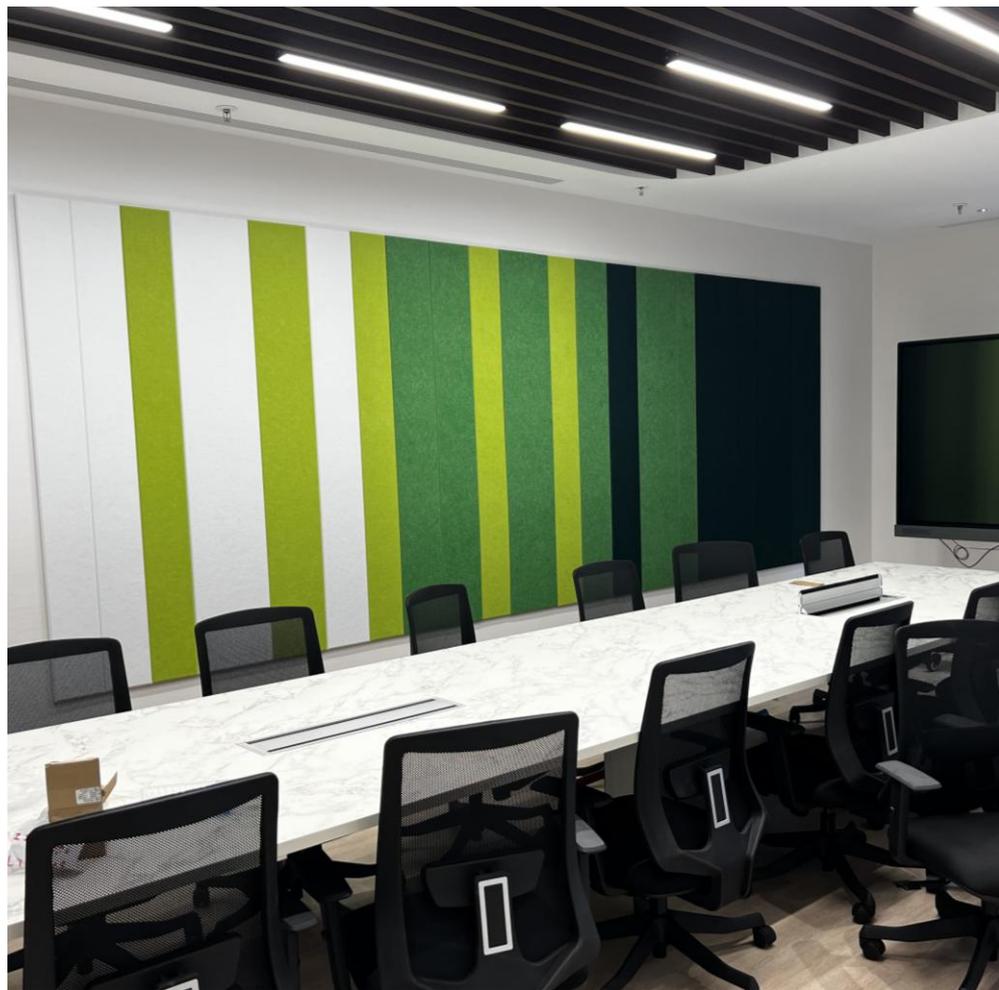


CS04-A116~9A/B
W 240*D 120 (cm)



雙層牆面 Double Wall





壁掛消音箱 Wall Mounted Silencer Box





FEATUURES

POCHLANIA

迷音筒 Cylinder

筒狀消音板具有優異的吸音效果，NRC值範圍在0.7~1.0之間。相比木製材料，它重量更輕，造型選擇更多，安裝便捷，且能顯著減少混響，有效提升聲音的清晰度。這類產品特別適合注重視覺效果的場域，如大廳、錄音室或公共走廊使用。

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POCHLANIANIE

FEATURES

板材使用厚度：9mm

最大尺寸：2400mm x 1200mm

使用50%再生PET製成

提供不同的加工選項以提高NRC評級

富有創意的聲學管理方式，不影響視覺效果

全球回收標準GRS認證

OEKO-TEX認證

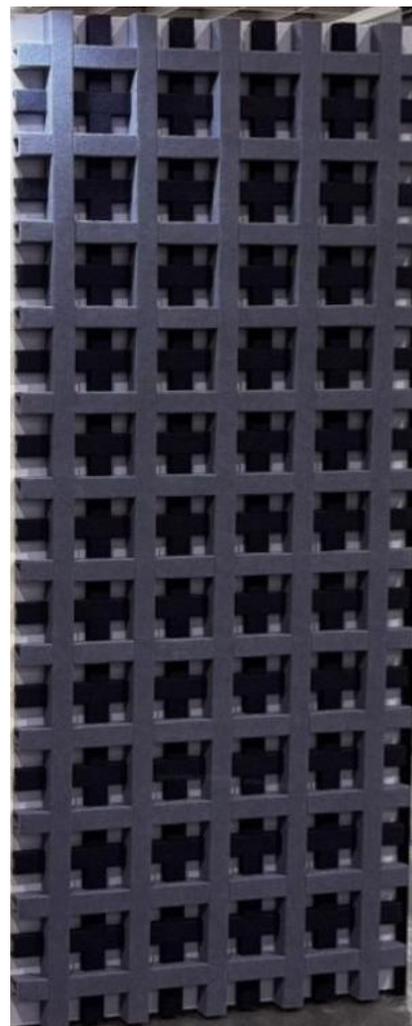
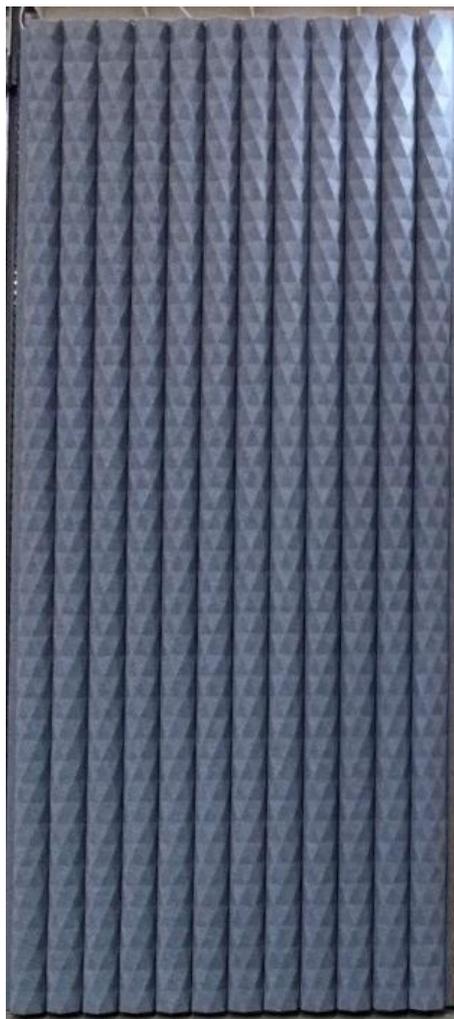
無甲醛、無塑化劑、無石棉成份

通過防焰等級

NRC:0.7~1.0 (最高值1.0，包含低中高頻)

WALL (牆面)

乾式 (壁掛)

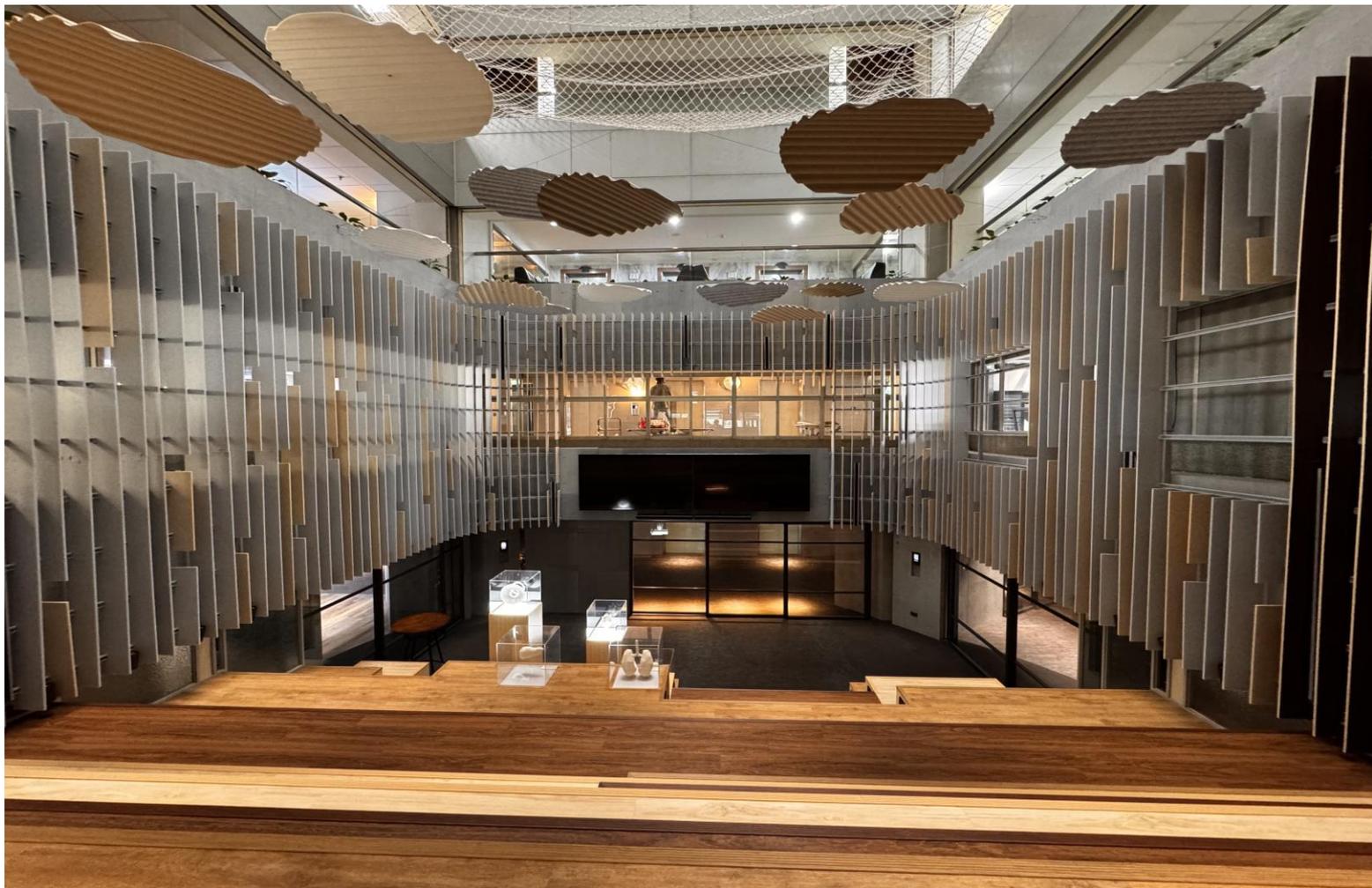




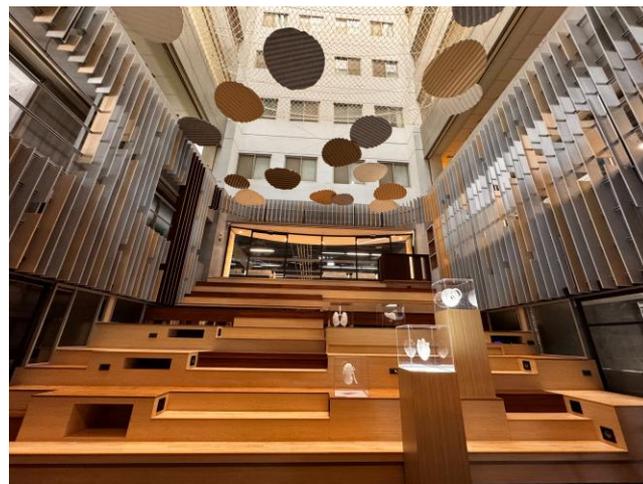
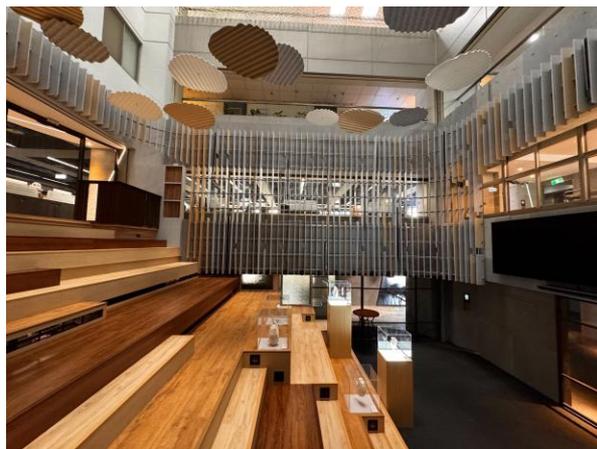
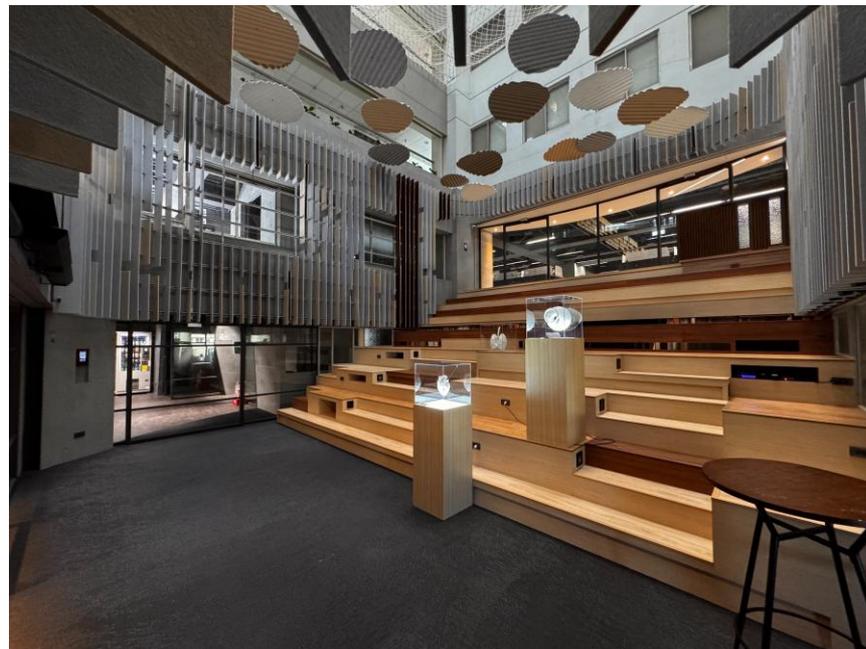
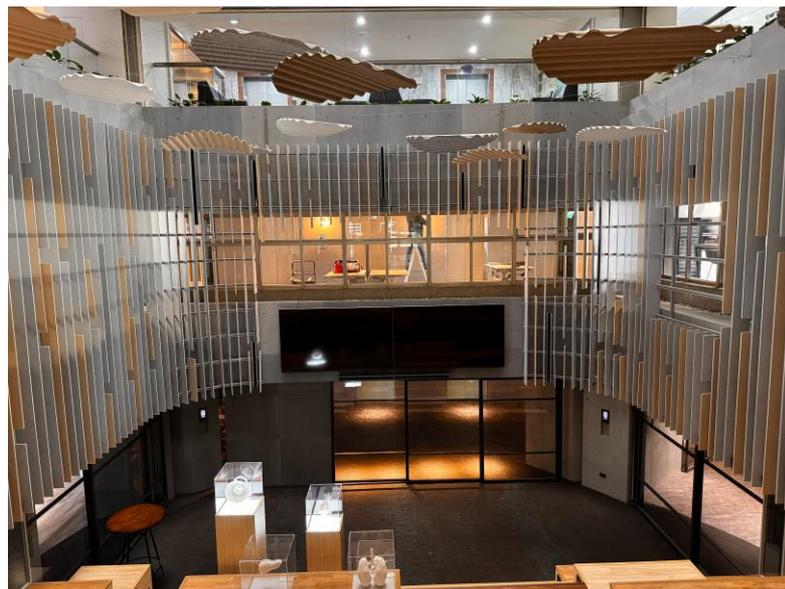


波浪壁掛 Wave Wall Hanging

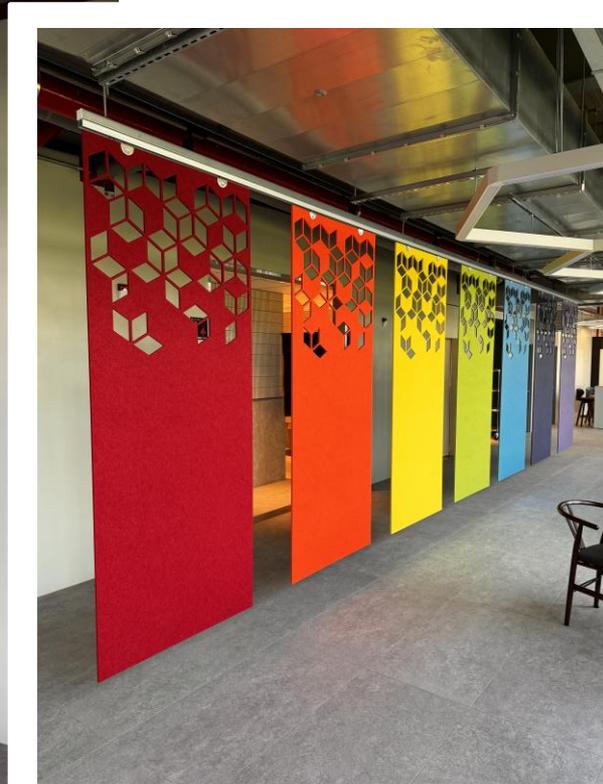




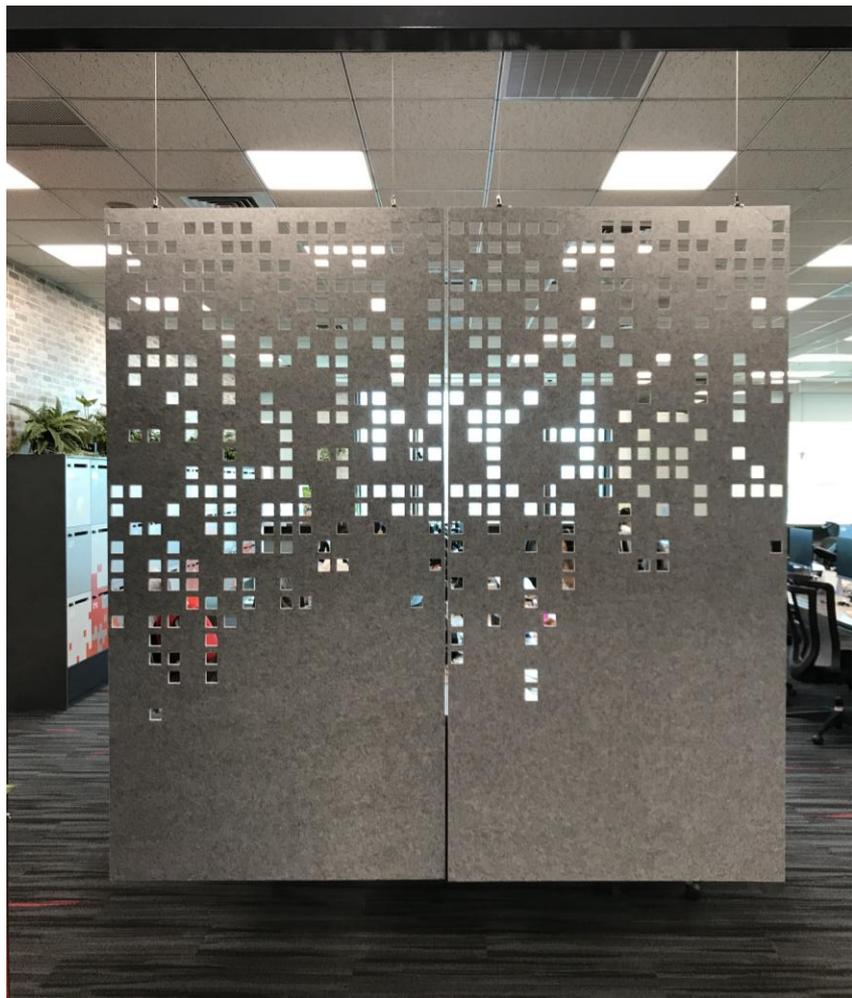
波浪壁掛 Wave Wall Hanging



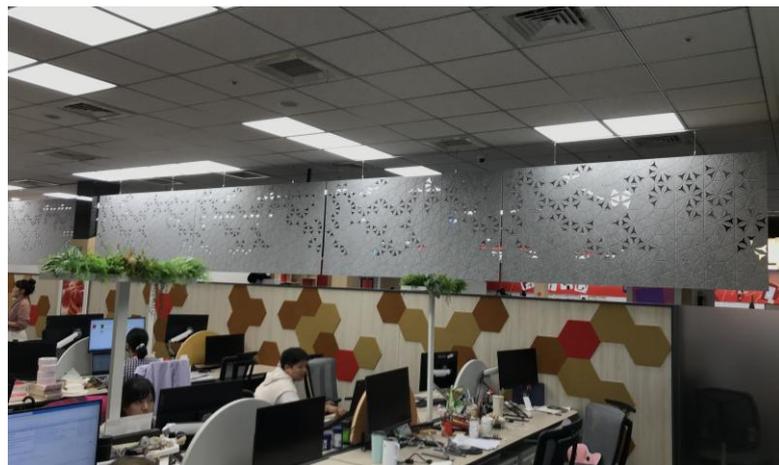
懸掛板 hanging board



懸掛板 hanging board



懸掛板 hanging board



吊掛式 Hanging Type

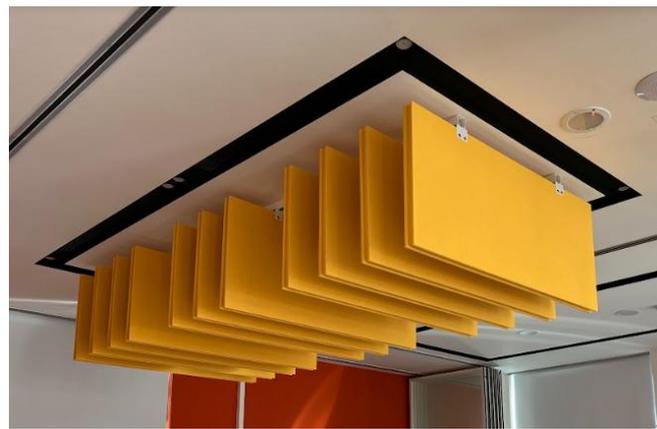
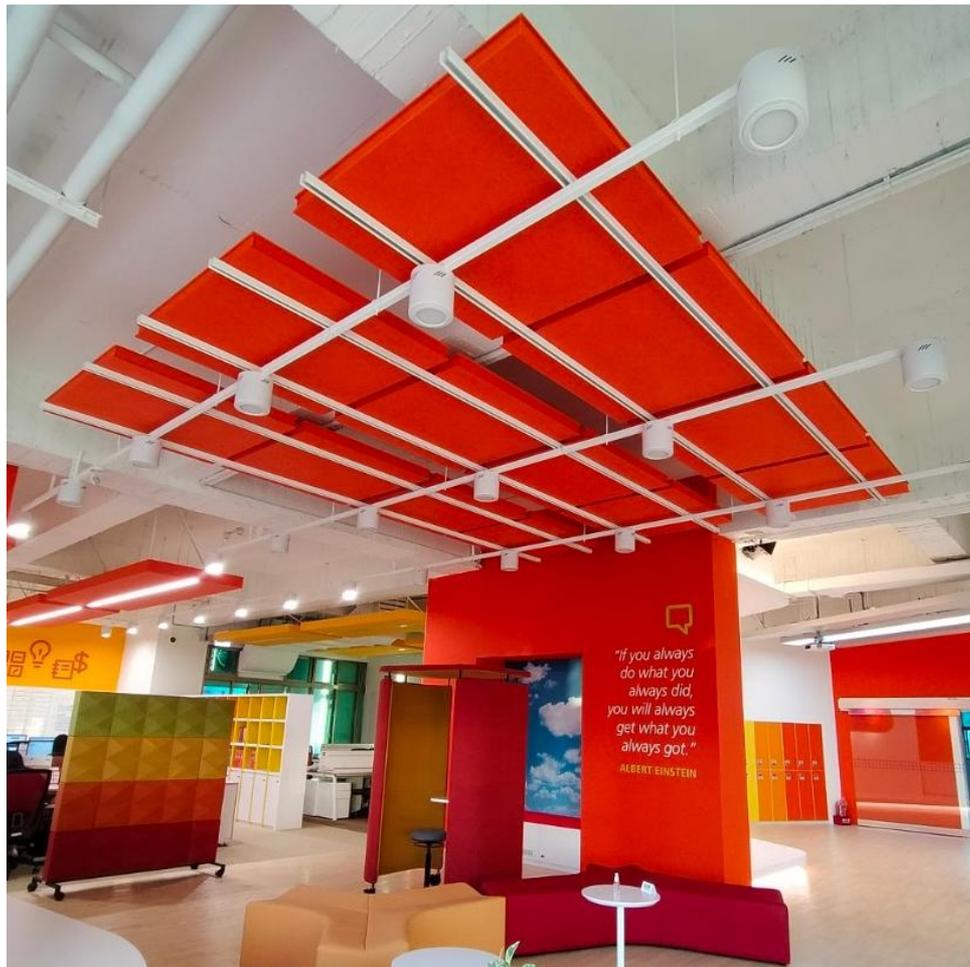




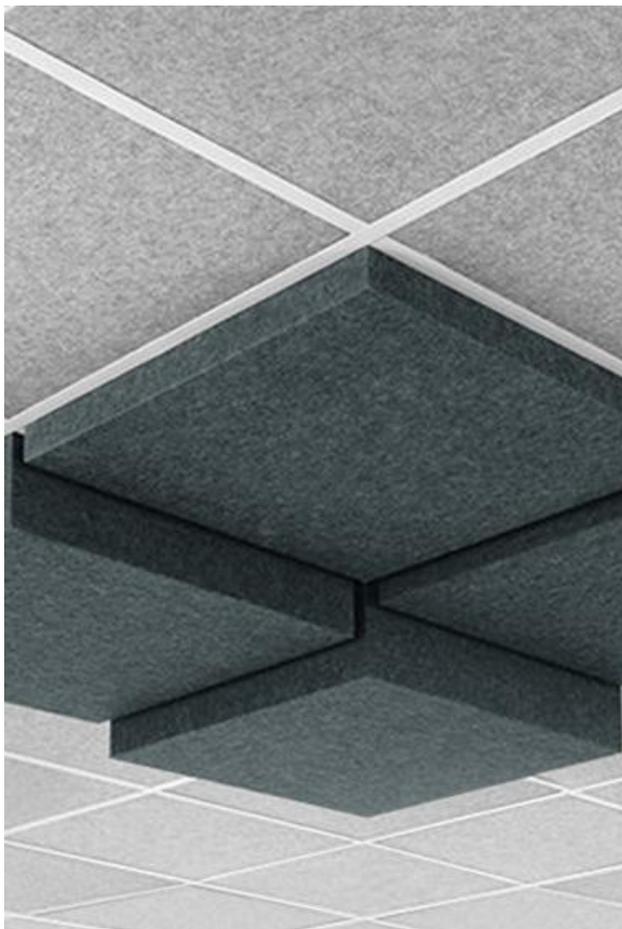
吊掛式 Hanging Type



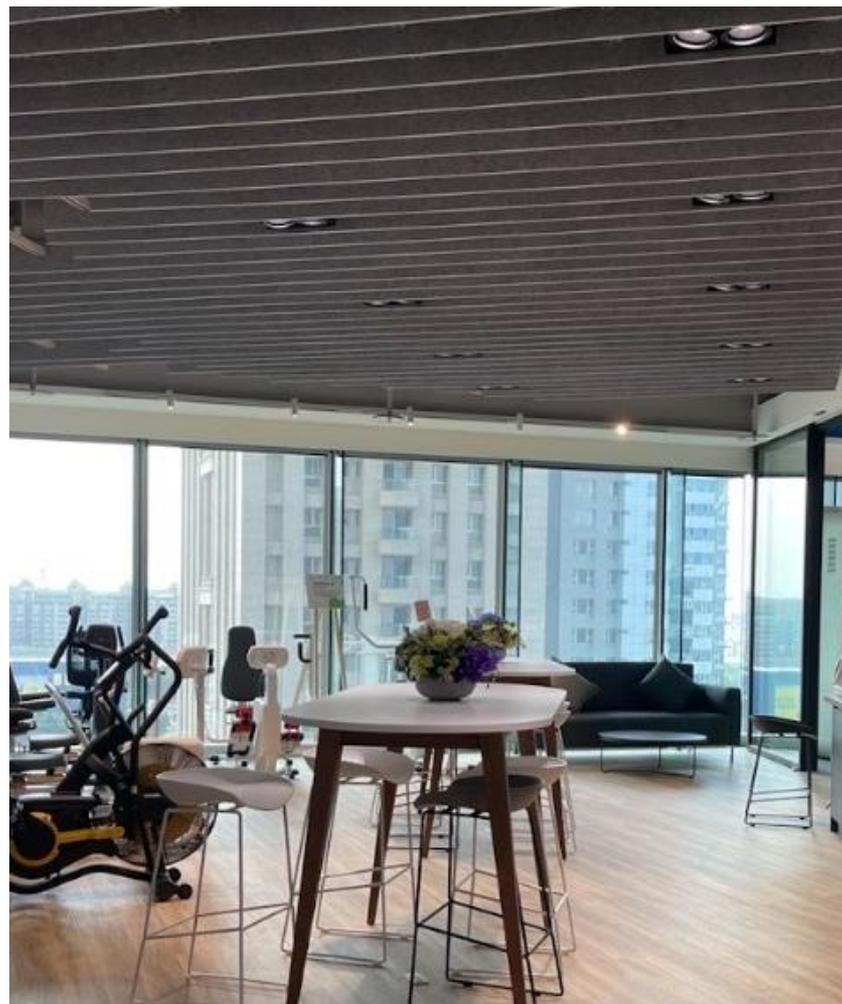
吊掛式消音箱 Hanging Silencer Box



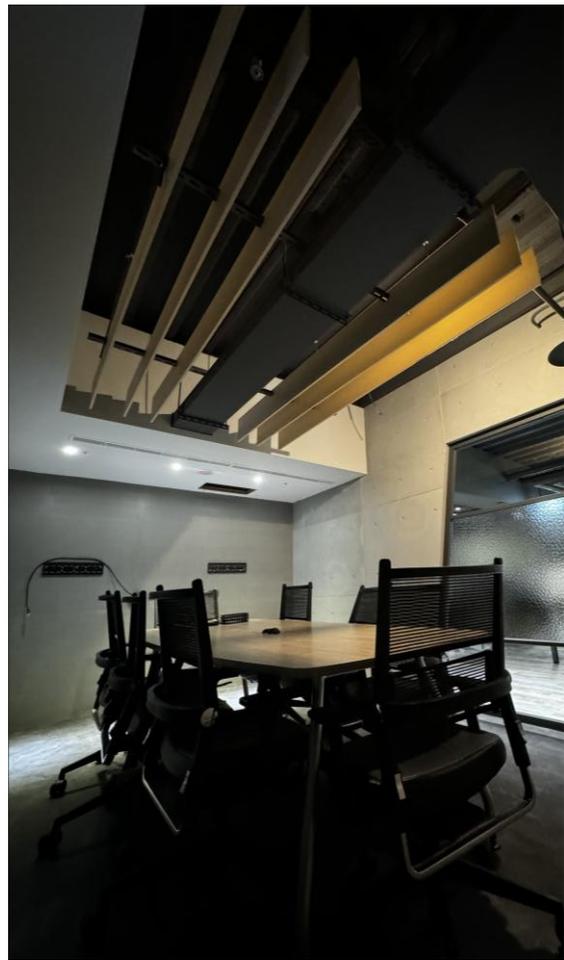
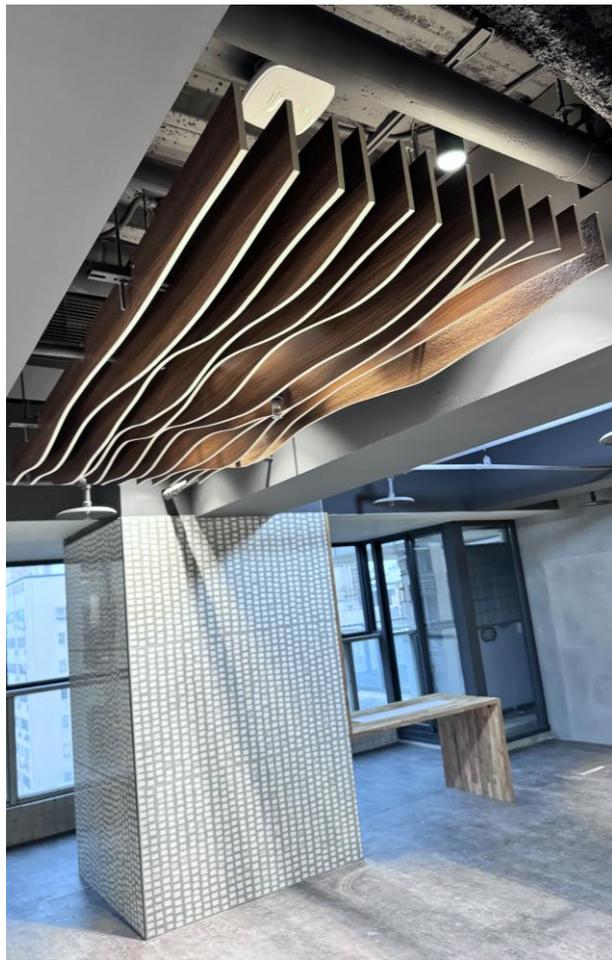
明架天花板 Exposed Ceiling



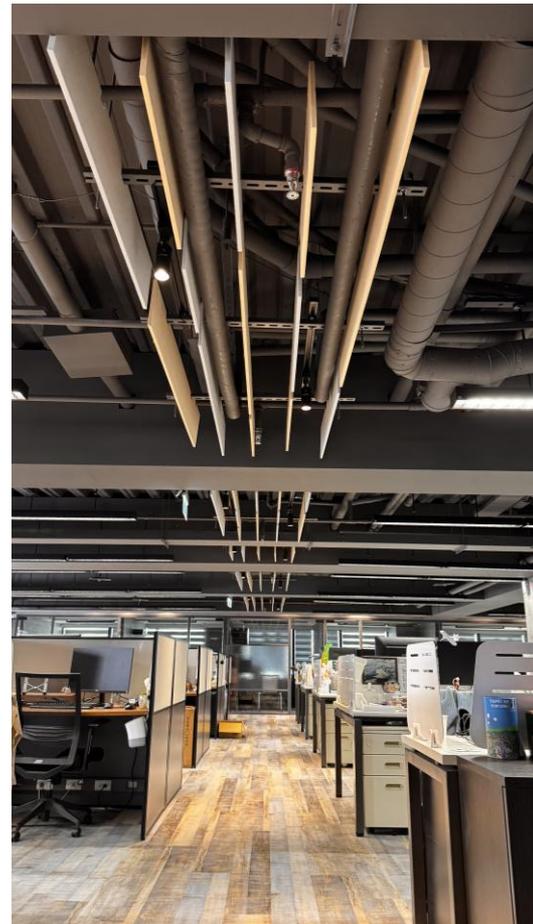
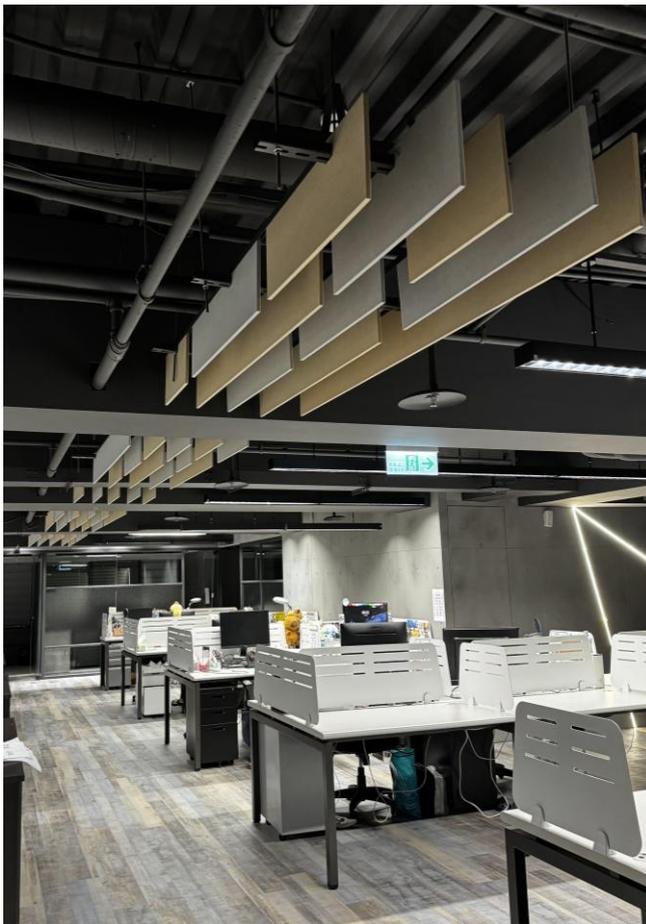
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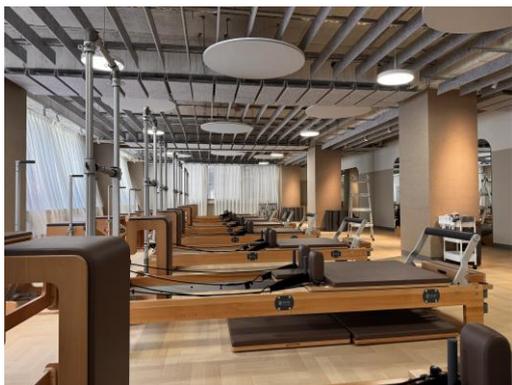
格柵天花 Grille Ceiling



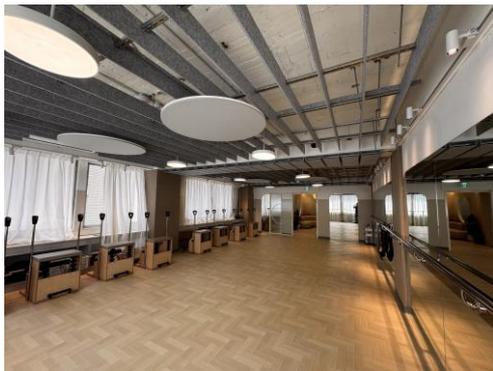
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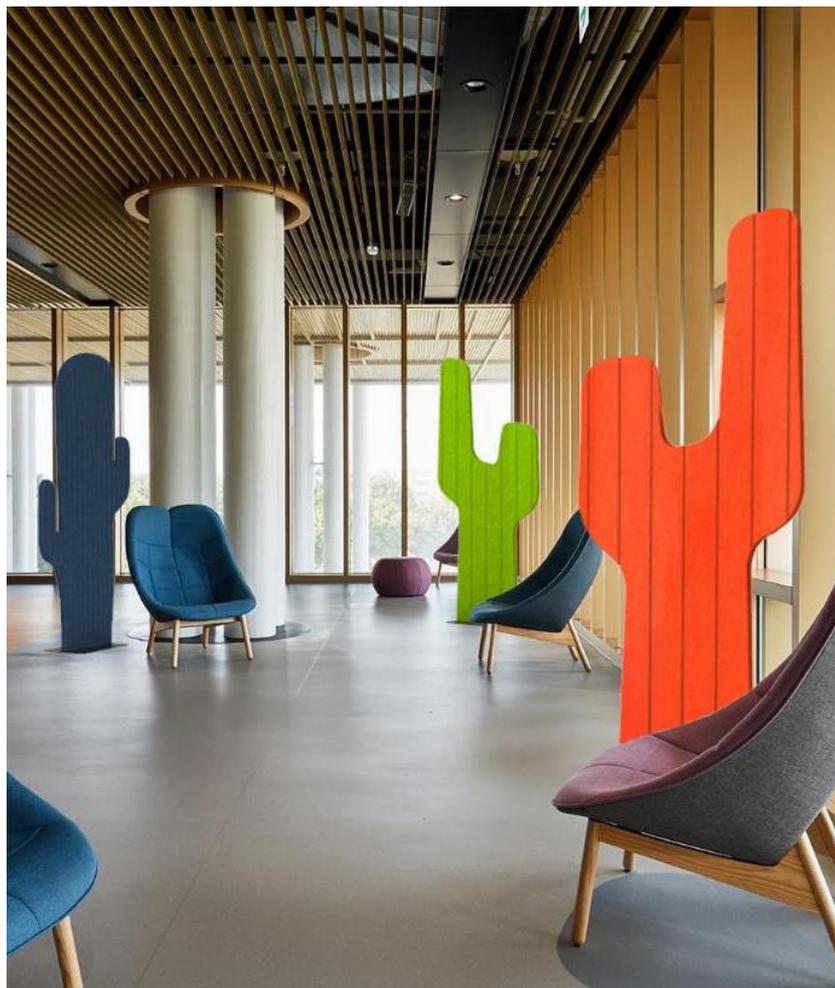


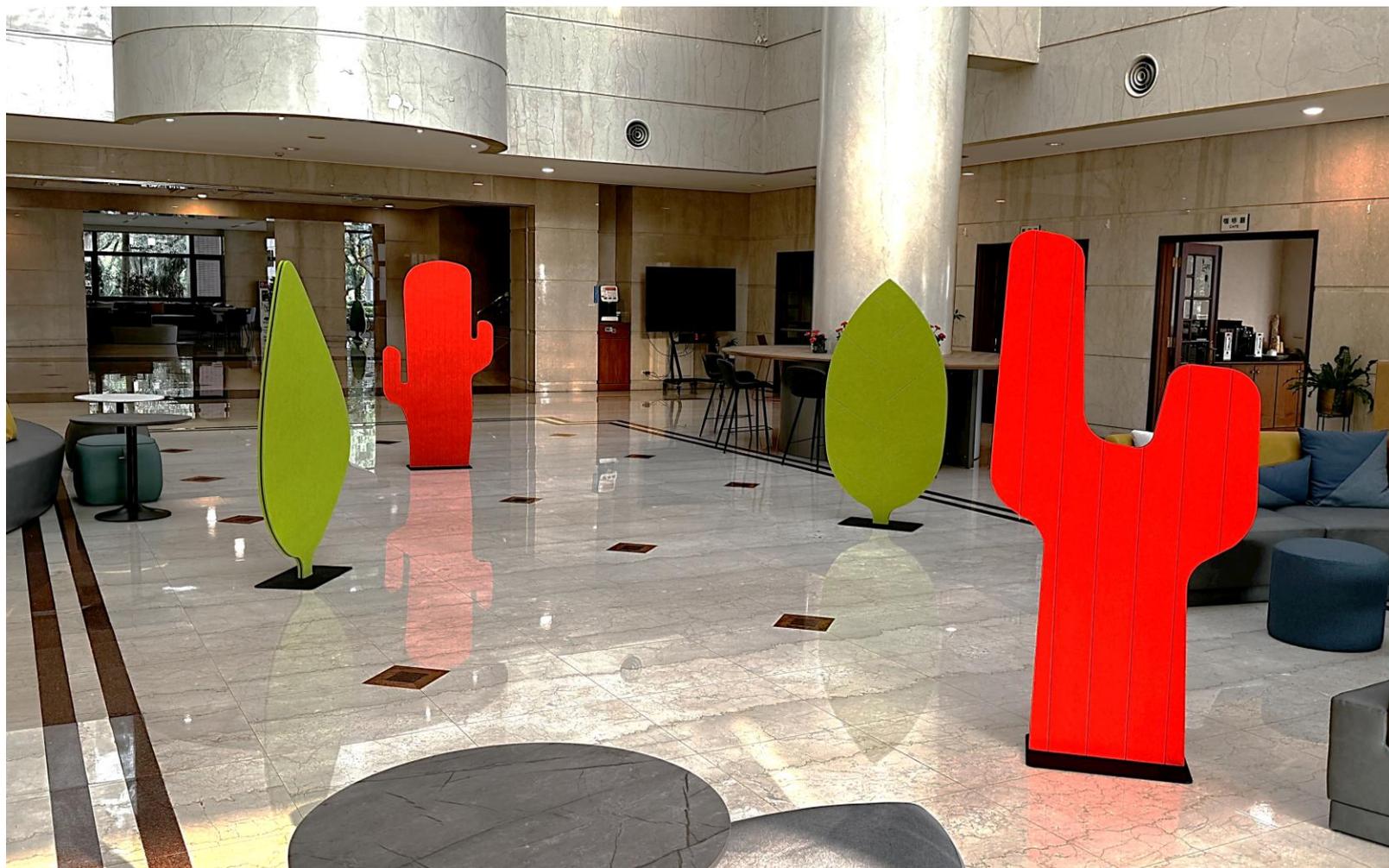
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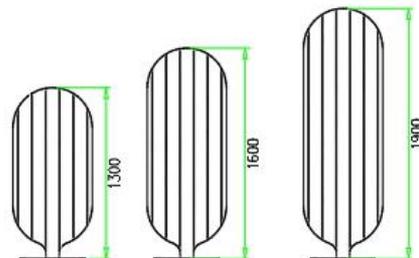
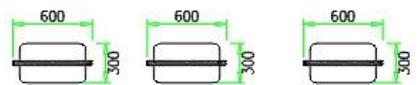
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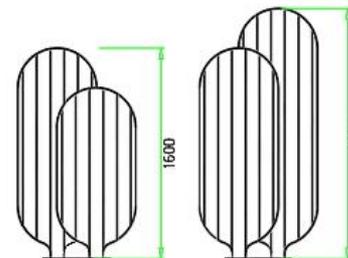
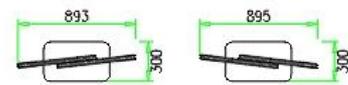




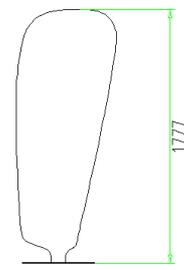
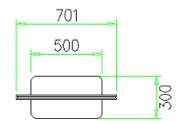
常規品



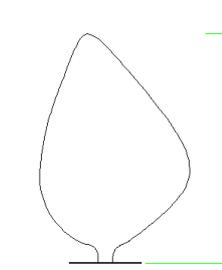
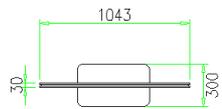
CS04-C02-1 CS04-C02-2 CS04-C02-3



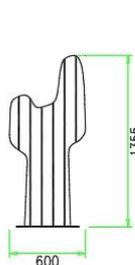
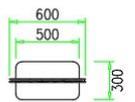
(組合方式-1) (組合方式-2)



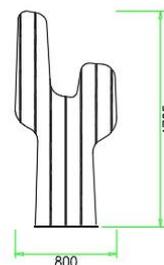
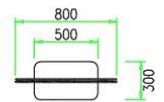
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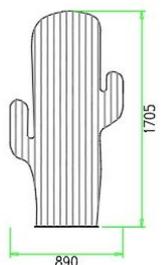
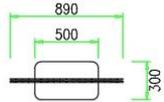
CS04-C04-5



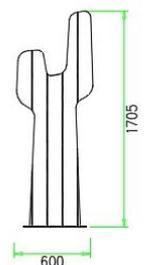
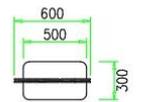
CS04-C03-1



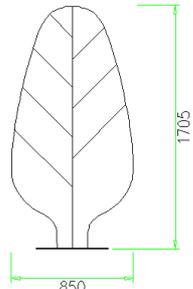
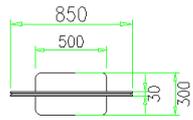
CS04-C03-2



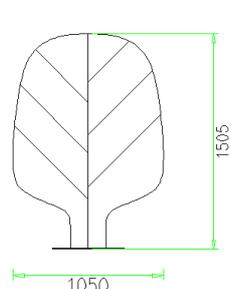
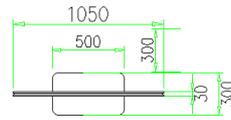
CS04-C03-3



CS04-C03-5

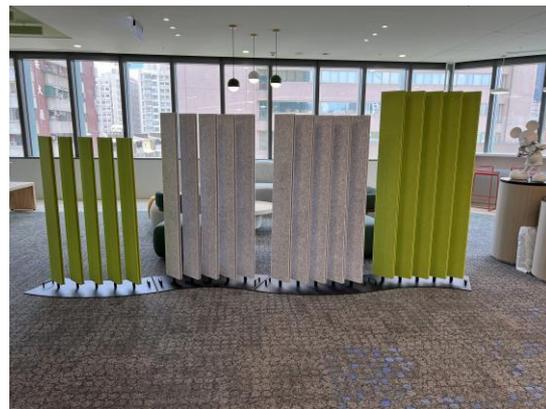


CS04-C04-6



CS04-C04-7

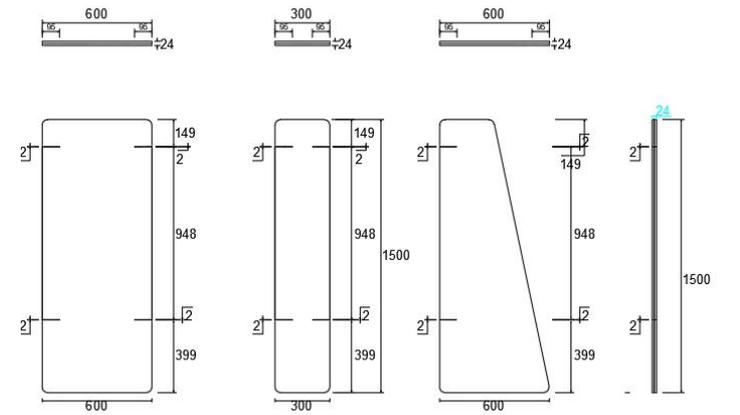
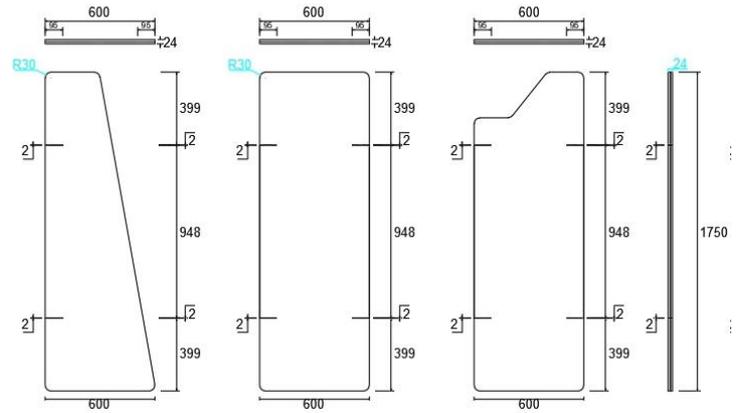
落地屏風 Ffloor Screen (客製品)



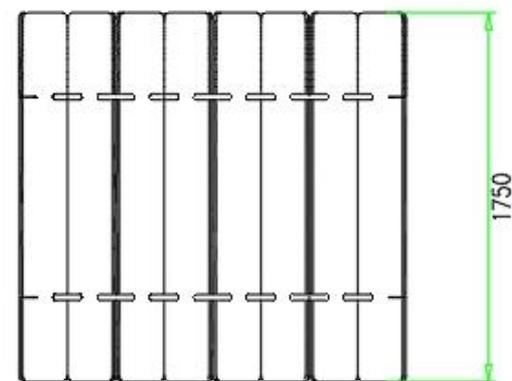
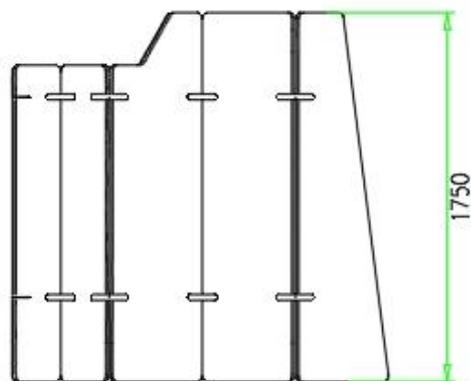
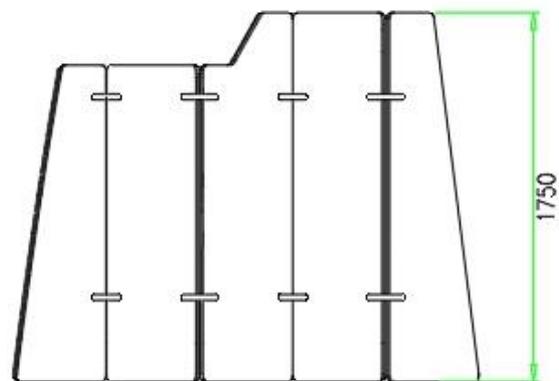
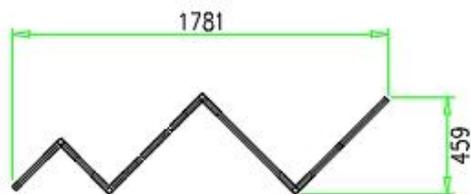
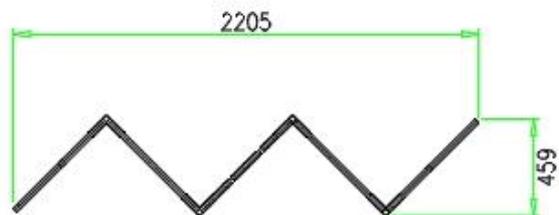
落地屏風 Ffloor Screen (客製品)



模組落地屏風 Modular Floor Screen



要素3D SKETCH UP



CS04-C01-1
(模組組合方式-1)

CS04-C01-1
(模組組合方式-2)

CS04-C01-2

模組落地屏風 Modular Floor Screen





FEATURES

POCHLANIA

迷音森林 Modular Compartment

設置於辦公區的多功能吸音設備，吸音率高達0.7~1.0，能有效降低噪音，改善空間聲學，同時兼具屏風功能，為區域分隔提供便利。

其設計感十足，可靈活移動，適應不同布局需求，不僅實用還能美化環境，是兼具聲學效果與現代設計的理想選擇，適用於開放式辦公空間、會議室或創意工作室等場合。

MINA
DESIGN CONSULTANT

POCHLANIA
NIE

FEATURES

板材使用厚度：9mm

基本尺寸：W1200 x H390 x T100mm

使用50%再生PET製成

提供不同的加工選項以提高NRC評級

富有創意的聲學管理方式，不影響視覺效果

全球回收標準GRS認證

OEKO-TEX認證

無甲醛、無塑化劑、無石棉成份

通過防焰等級

9mm-NRC: 0.25 (最高值1.0，包含低中高頻)

箱體+空腔-NRC: 0.7 (最高值1.0，包含低中高頻)

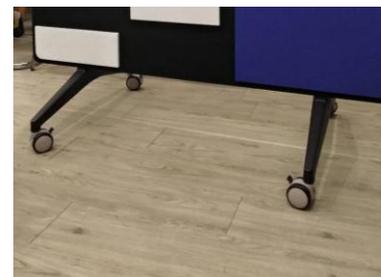
箱體+內膽-NRC: 1.0 (最高值1.0，包含低中高頻)

索要3D SKETCH UP



消音箱厚度:100mm

固定底座 / 移動腳座



桌上屏 Desktop Screen

- 1.厚度:24mm
- 2.基本對應25mm厚桌板



推薦色



AK-04



AK-11



AK-26

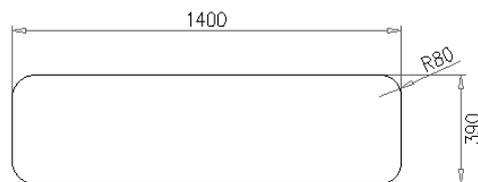


規格:1400x390(mm)

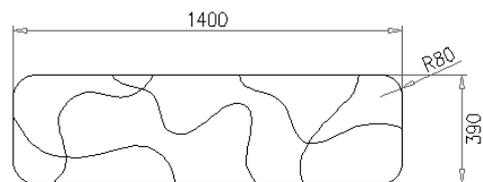
厚度:12(mm)

兩種五金各別適用:桌面or桌邊

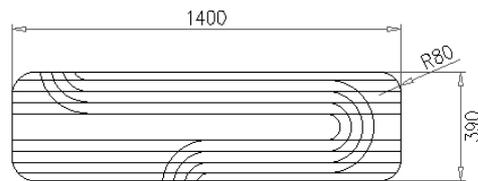
單面刻溝



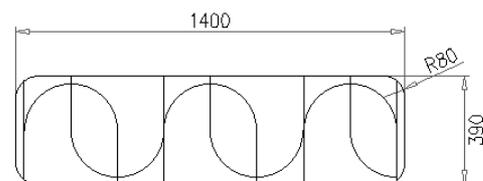
KB14-C13-41(無刻溝)



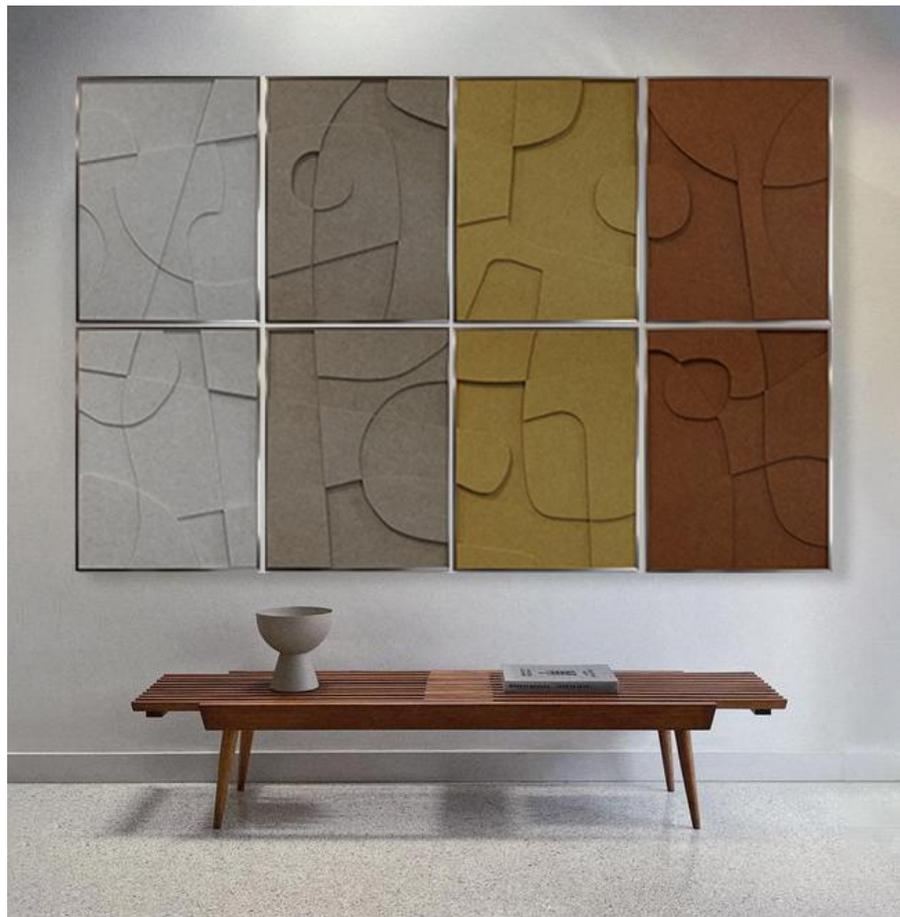
KB14-C13-42

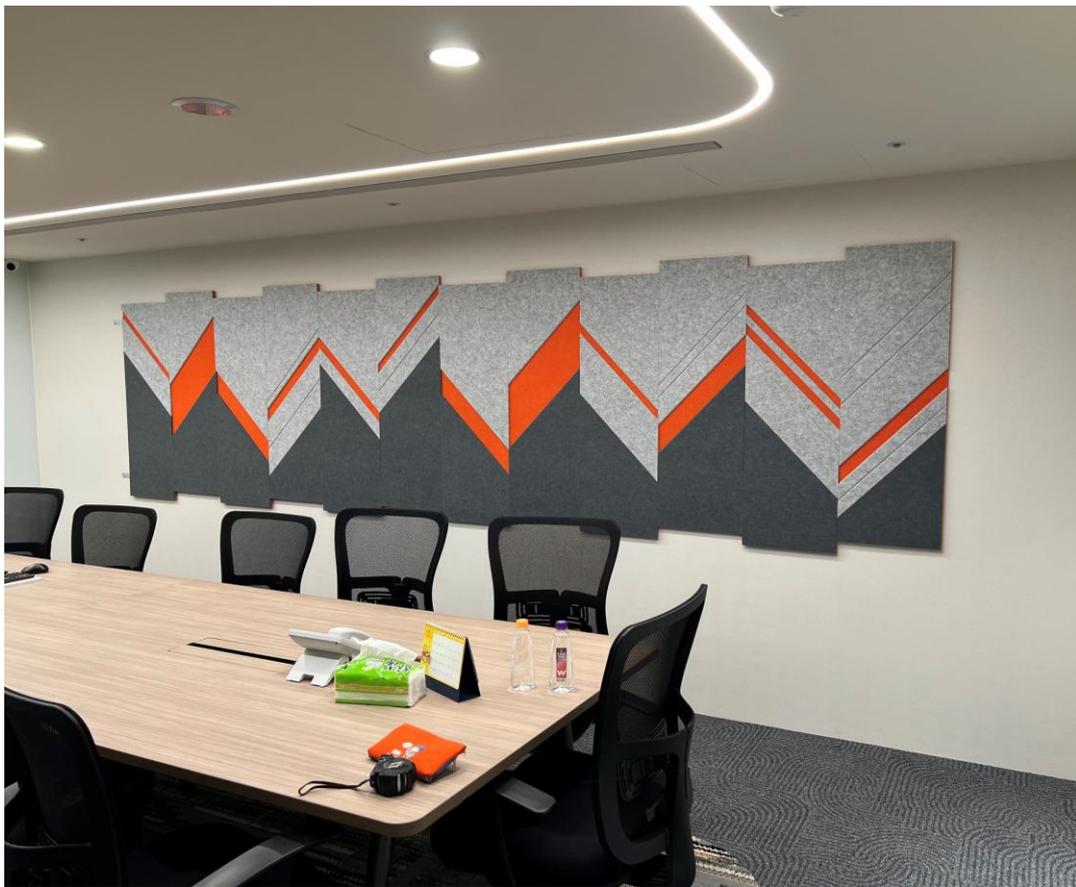


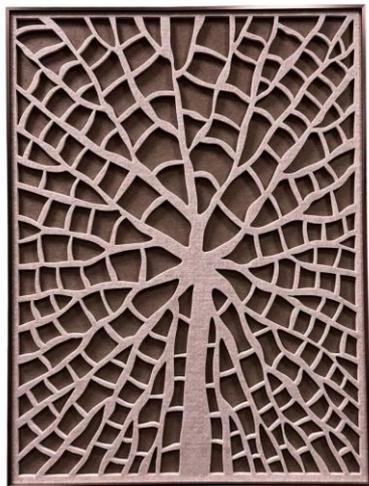
KB14-C13-44



KB14-C13-43











特殊樣式

PET-聚酯纖維消音板

噴印



複雜曲線



造型杯墊



卡榫結構



多層堆疊



卡榫結構



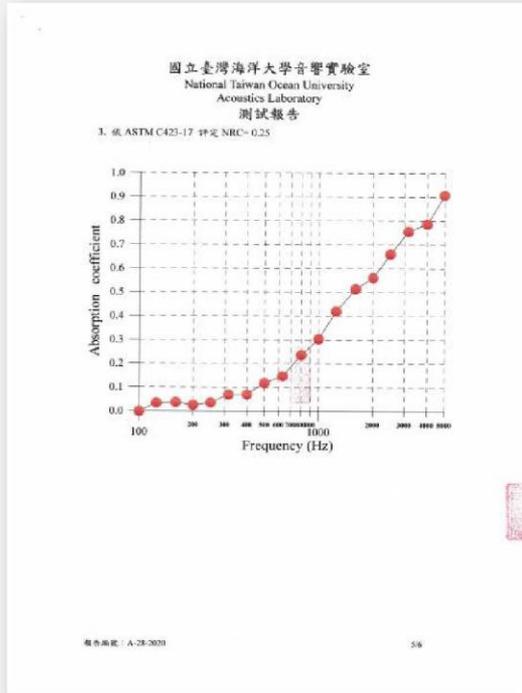


測試報告

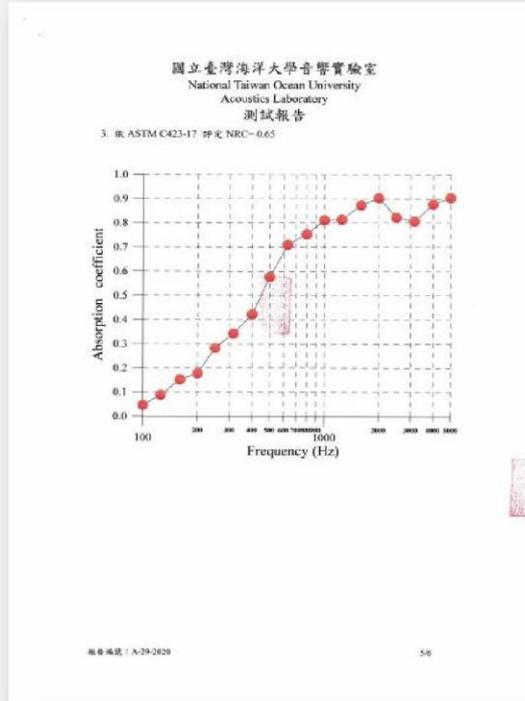
PET-聚酯纖維消音板

吸聲(NRC)被定義為 0 到 1 之間的係數，後者意味著所有聲音都被表面吸收，因此沒有聲音回到房間。

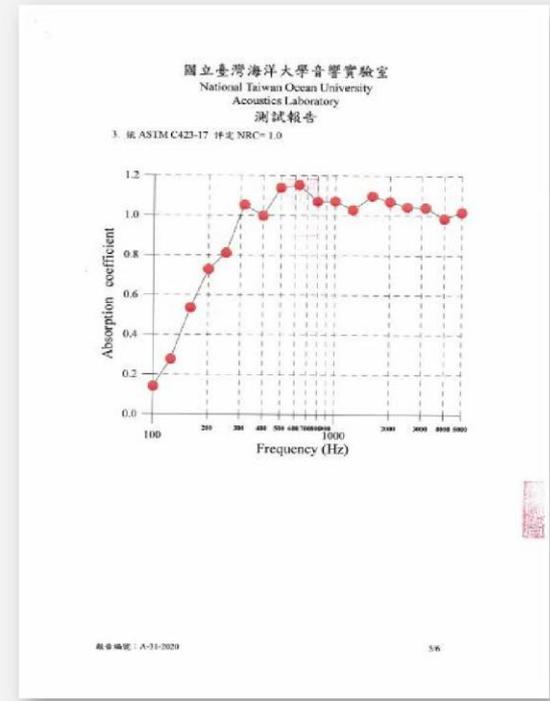
9mm消音板平貼牆面
降噪係數 - NRC: 0.25



9mm消音板+50mm空腔層
降噪係數 - NRC: 0.65

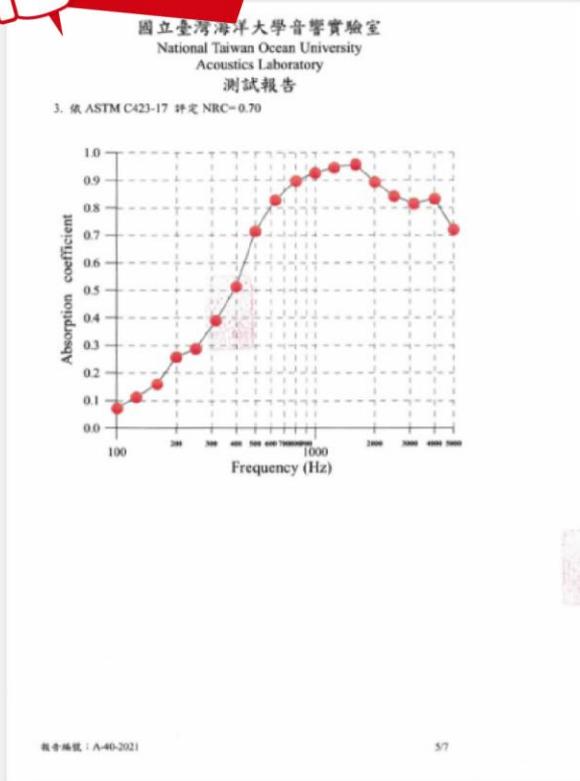


9mm消音板+60k 50mm岩棉
降噪係數 - NRC: 1.0



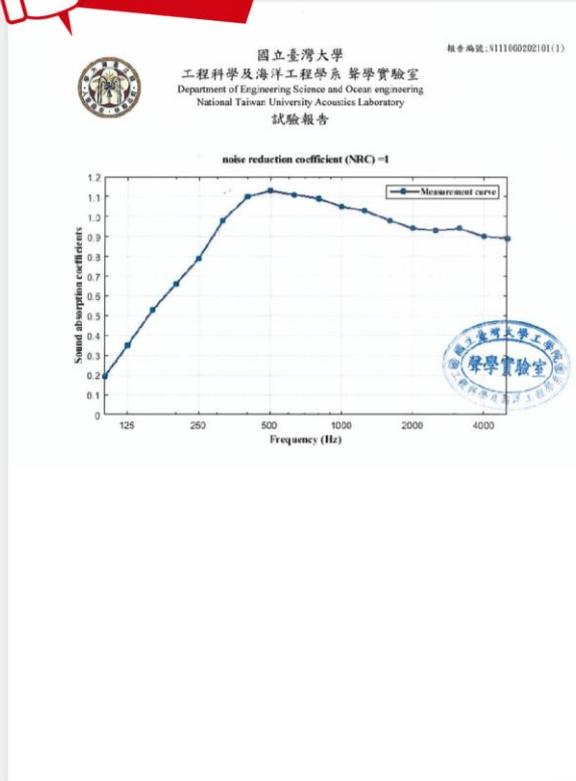
9mm消音板+45mm空腔層+9mm消音板

降噪係數 - NRC : 0.7

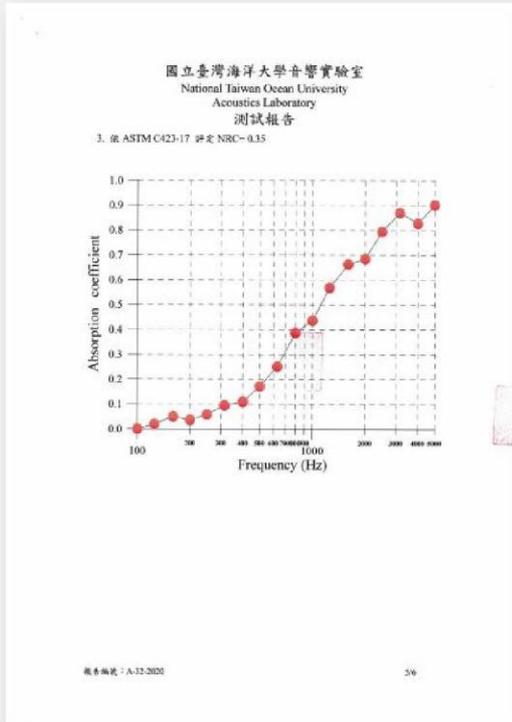


9mm消音板+54mm聚酯纖維消音棉+9mm消音板

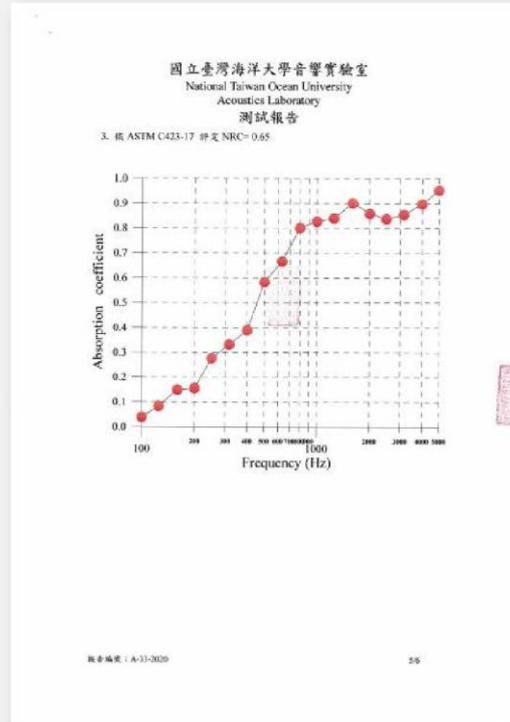
降噪係數 - NRC : 1.0



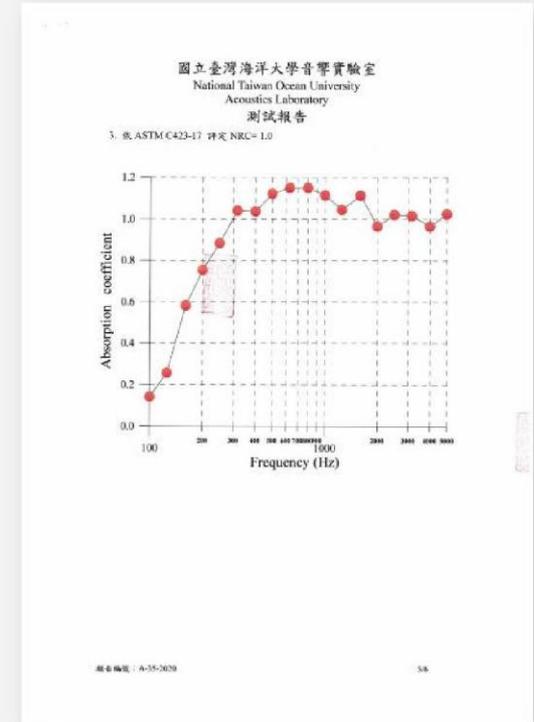
12mm消音板平貼牆面
降噪係數 - NRC: 0.35



12mm消音板+50mm空腔層
降噪係數 - NRC: 0.65



12mm消音板+60k 50mm岩棉
降噪係數 - NRC: 1.0



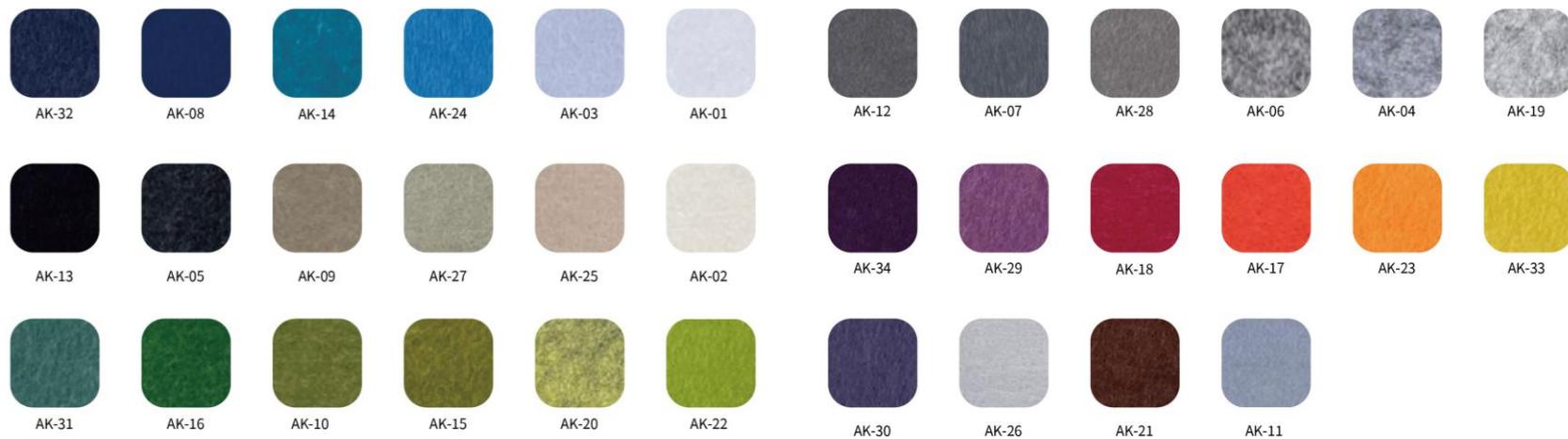


色樣

PET-聚酯纖維消音板



PET 9mm



PET 12mm

LINE@600nmvru



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UC: 53353066