

**Mikro**

# **Mat Ebony Series**

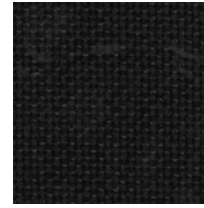
**BLACK WALLS & CEILINGS**

[www.anutone.com/matebony.htm](http://www.anutone.com/matebony.htm)





# Mikro Mat Cara Ebony



## Key Attributes

MAT Cara Ebony sets high standards for factory-finished fabric panels as an upscale black architectural finish and practical acoustical application for ceilings and walls.

MAT Cara Ebony adds to the portfolio of winning advantages, elegance, economy and ease of installation that brings demanding performance to special spaces such as multiplexes, home theatres and studios.

Added feature is the high impact resistance of the panel, thus making MAT Cara Ebony very durable.

## Typical Applications

MAT Cara Ebony is used for black ceilings and walls in audio-visual conference rooms, recording studios, multipurpose auditoria, cinema multiplexes, home theatres etc.

## Aesthetics

Fabric ceilings and walls with vertical and horizontal joint lines impart a true panel effect.

## Features

- Density ~650 kg/m<sup>3</sup>
- Sizes: Width - 600mm; Length - 600, 1200 mm
- Thickness - 15mm for ceilings; 20mm for walls
- Edge profiles - 15mm - Square edge. 20mm Square edge with long edges kerfed. Fabric is returned and bonded on the reverse along the short edges and returned and bonded upto the groove for the long edges.

## Framework

Installation is quick and easy; for ceiling in Skelet Ebony T-grid system; for walls with Spline JEI system. Achieves fastener-less installation and 'zero-rattle' during LF-induced airborne vibrations. For greater system depth, Spline can be installed on Strut CC25/CC50.

## Product Considerations

Fabric shade may slightly vary from batch to batch due to limitations in dye technology. Edges are rendered square with edge banding that can chip and damage if improperly transported / site-handled.

## Design Considerations

- It consists of thin fabric wrapped on naturally textured panels
- Edges may not appear true and straight. Hence, the panels must be installed on surfaces that are three metres from sight. Alternatively, the long or short edges must be camouflaged with Spline JEI
- Dado or chair rails and other transition reveals must be introduced early in the design
- Indicated panel thickness is for base panel only - fabric thickness of 0.5 mm should be added for overall MAT Cara Ebony thickness. Add 2 mm for the F-Spline to the overall system thickness. Hence, 20 mm panel means 22.5 mm system thickness
- Panels should not touch the floor but rather rest on a wooden skirting which may be repeated at the panelling-ceiling junction.

## Accessibility

Installation of MAT Cara Ebony with Skelet Ebony or Spline system ensure easy dismantling and reinstallation of panels for accessibility to the surface or void behind. MAT Cara can be cleaned by vacuuming and conventional fabric shampoos.

## Environmental Impact

MAT Cara Ebony is eco-friendly and wins 15 LEED points.

## Tech Performance

Cara Ebony fabric is inherently flame-retardent and F-Spline are FR grade. For the MAT base panel of 15mm thickness and density 650 kg/m<sup>3</sup> tested for fire reaction at FRL, CBRI Roorkee vide Test Report # F(S) 1906 in July-October 2006

- Non-combustibility - Mass loss 52% @ 750 °C - BS 476 Part 4
- Ignitibility - 'P' - BS 476 Part 5
- Fire Propagation Index - 9.00 - BS 476 Part 6
- Surface Spread - Class I - BS 476 Part 7
- Specific Optical Density of Smoke - Flaming Exposure 25.00 Dm (Corr) - ASTM E662
- Thermal Conductivity - 0.10 Wm/k - IS 3346

## Logistics

Thk (mm)	Nos./carton	Carton wt(kgs)	Carton ht (mm)
20	06	44	145

Carton size for 600x1200mm panels is 1216 x 616 mm

Note - Carton wt is for MAT Cara Ebony only. MAT Cara Ebony is always packed in pairs. Minimum order qty - 1 carton. Wooden crating is compulsory for part loads.

## Warranty

10 years AnutoneSurety - limited warranty - on the assembled system when installed to Anutone's specifications.

## Site Considerations

Cartons of MAT Cara Ebony must be stored on a flat, dry surface. They must not come in contact with water. Surfaces must be devoid of moisture prior to installation. The final act of panel installation must be performed only when all other works are completed and site has attained occupancy conditions. Trained and skilled technicians must install MAT Cara Ebony. 'Soft' and 'clean' handling is a must. MAT Cara Ebony feature edge banding that can chip and damage if not handled with care. For wall edges and corners where cut panels are required, the fabric can be peeled back and cut to size, the base panel cut to size and fabric bonded again with rubber-based adhesives. Panels can be vacuumed post-installation.

## Acoustical Parameters

### Sound Absorption Coefficient as per ISO 354

Cara Ebony is an acoustically transparent fabric and acoustical values of the base panel apply. Please see the relevant Product Data Sheets. Anutone has the capability, expertise and own infrastructure to perform custom acoustics tests for given design as per ISO 354 at its AnutoneScans lab and provide acoustic values of MAT Cara Ebony specific to installations.

## Installation Guidelines

### Wall Panelling (A mounting)

Scope – Design, Supply, Build of MAT Cara Ebony as designed, manufactured and installed, per approved drawings and specifications, by Anutone Acoustics Limited, an ISO 9001 2000 company.

Framework – The Splines EHI system is installed parallel to the long edges of the panel. J system is installed on the short edges perimeter.

Acoustical panels – MAT Cara Ebony; Size 600x1200mm; Thickness 20 mm installed on the Splines system.

Joints and finish – Normal square; long edges kerfed, staggered.



# Mikro Mat Ebony

## Key Attributes

MAT, an invention of Anutone®, is a unique matrix layer technology of intelligent blending of calibrated micro fibres with mineral binders resulting in tiles that offer the best in broadband sound absorption! MAT Ebony is a natural tile surface with an extraordinary micro-cell finish, that is pigmented and coated matte black colour. MAT Ebony, is, in a way, a unique AV product that absorbs both light and sound, and is for those architectural spaces where dark interiors are necessary.

## Typical Applications

MAT Ebony is used for exposed acoustical ceilings and wall panellings in cinema multiplexes, home theatres, AV rooms, discotheques, lounge bars etc.

## Visual Variants

There are no visual variants to MAT Ebony unless embossed tiles from the MAT Designer sub-menu are pigmented and coated for surface variations.

## Features

- Volume Density - 600 kgs/m<sup>3</sup> (HD6)
- Surface density for 15mm - 9 kgs/m<sup>2</sup>
- Sizes - Width 600mm; Length 600 / 1200 mm
- Thickness - 15mm for ceiling; 20 mm for walls
- Custom sizes - Nominal 595x595/1195 mm suits 600x600/1200 mm grids;
- MAT Ebony conforms selectively to applicable clauses of ISO 8335 / ASTM C367 / IS 14276.

## Accessibility

MAT Ebony for ceilings in Skelet Ebony makes it modular and dismantable for plenum access to services in the ceiling void. MAT Ebony for panelling is installed on AnutoneStrut C-system and Spline H-system. There are no fasteners driven through the surface of the MAT surface ensuring integrity of finish and easy dismantling.

## Framework

- T-system Black for ceilings - exposed grids
- C-system for ceilings, panellings, partitions - concealed
- F-Spline for panellings - fastener-less, quick installation

## Logistics

Thk (mm)	Nos./carton	Carton wt(kgs)	Carton size (mm)
15	10	39	606L x 606W x 165 H
20	08	36	

For MAT Ebony size 600x600. Minimum order qty - 1 ctn.

## Site Considerations

Individual panels must be carefully removed from the special cartons since the panels are supplied pre-painted. MAT Ebony requires 'soft' and 'clean' handling. Installation surfaces must be dry and level. Nicks and 'white' stains can be covered with the ordered touchup paint.



## Aesthetics

For tiles installed at close range of sight edge treatment is necessary for installed aesthetics. MAT Ebony has edge profiles in Normal, Steppe for ceilings and Normal, F-Spline (for 20 mm thickness only) for panellings.

## Design Considerations

For MAT Ebony, at close range of sight, Normal edge must never be butt jointed. Edges must be separated by 4-6 mm gap to create a natural groove. MAT Ebony must not be installed at pedestrian height. For ceilings where exposed T-grids are used ensure matte black pre-coated T-grids like Profiles T-system Black.

## Tech Performance

For the MAT base panel of 15mm thickness and density 650 kg/m<sup>3</sup> tested for fire reaction at FRL, CBRI Roorkee vide Test Report # F(S) 1906 in July-October 2006

- Non-combustibility - Mass loss 52% @ 750 °C - BS 476 Part 4
- Ignitibility - 'P' - BS 476 Part 5
- Fire Propagation Index - 9.00 - BS 476 Part 6
- Surface Spread - Class I - BS 476 Part 7
- Specific Optical Density of Smoke - Flaming Exposure 25.00 Dm (Corr) - ASTM E662
- Thermal Conductivity - 0.10 Wm/k - IS 3346

## Environmental Impact

MAT Ebony is an eco-friendly system and wins GBC's 15 LEED points. Since the panels are black pigmented during the manufacturing process less paints are consumed for surface coating.

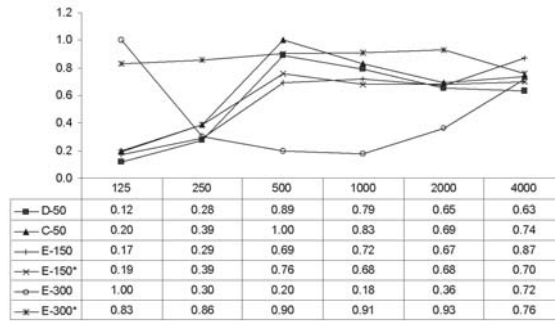
## Economics

MAT Ebony 15 mm on Strut C-system is technologically economical for the lifecycle cost of the system.

## Warranty

10 years Surety - limited warranty - on the assembled system when installed by to Anutone specifications and maintained under the AnutoneSentry AMC programme.

## Acoustical Parameters



MAT - 15mm thick

**NOTE** - Anutone has the capability, expertise and own infrastructure to perform custom acoustics tests for given design as per ISO 354 at its AnutoneScans lab and provide acoustic values of MAT Ebony specific to installations.

## Installation Guidelines

**Ceiling (E300\* mounting)** – Scope - Selec’s protocol performing to interior requirements conforming to international standards consisting of Design, Supply, Build scope of MAT Ebony as designed, manufactured and installed, per approved drawings and specifications, by Anutone Acoustics Limited, an ISO 9001 2000 company. Framework - Skelet Ebony, consisting of Main and Cross Tees interlocked at 600 mm centres. Acoustical panels - MAT Ebony; Size 595x595 mm; Thickness 15 mm; Edge profile - Normal. Acoustical infill - Synth AW 10x25 or 10x50 overlaid on the tiles.

**Panelling (D50 mounting)** – Scope - Selec’s protocol performing to acoustical requirements conforming to international standards consisting of Design, Supply, Build scope of MAT Ebony as designed, manufactured and installed, per approved drawings and specifications, by Anutone Acoustics Limited, an ISO 9001 2000 company.

Framework - Strut C-System, consisting of Cross Channels fixed at 600x600mm centres, using Stitch. The face of the channels is painted matte black. Acoustical panels - MAT Ebony; Size 600x1200mm; Thickness 20 mm installed on the Strut C-system with Spline F-system.





**ANUTONE WALLS & CEILINGS**

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