

# SWC-MERO Calcium Sulphate Core Raised Access Floor System

Design and Manufactured in Germany

## ***THE INVENTOR OF RAISED ACCESS FLOOR***

*Total Fire Resistance ( Non-Combustible, Integrity, Insulation & Stability )*

*Unique Fully Primered Calcium Sulphate Core for Extra Humidity Resistance*

*Unique Creaking Free Melamine Edge Trim for Excellent Walk-On-Comfort*

*Conductive Calcium Sulphate Core for Sophisticated Electronic Equipments*



SWC MERO ISO 9001 RAL-GZ941 PSA MOB DIN4102 IBR

ENVIRONMENTALLY



FRIENDLY

# SWC-MERO Calcium Sulphate Core Raised Access Floor System

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## TECHNICAL DATA

### 1. Manufacturer

MERO-TSK International GmbH & Co. KG is founded in 1928 with 20,000 employees and EURO 3,000 millions turnover in 2004. The founder, Dr. Mengeringhausen, is the inventor of space frame structures that allow the construction of wide-span lightweight structures for roofs and facades. In 1972, MERO invented the raised access floor that replace the traditional concrete double floor. Over 3 million m<sup>2</sup> of raised access floor had been installed for the past 30 years.

### 2. Sole Distributor and Authorized Applicator

Shun Wah Contracting Co., Ltd. (SWC) is an ISO 9001 certified company established in 1999 that specialized in design and installation of raised access floor system, underfloor service, metal ceiling, demountable partition and system furniture. The management and project team have over 15 years experience in calcium sulphate core, wood core and steel encapsulated cement infill raised access floor systems from Germany, UK, Italy, USA, Japan and China. Total Area of application over 500,000 m<sup>2</sup>.

### 3. Product

SWC-MERO Calcium Sulphate Core Type 6 GBB30 (30mm thick panel with GMS on top & bottom)

SWC-MERO Calcium Sulphate Core Type 6 GB30 HPL (30.5mm thick panel with anti-static HPL on top & GMS on bottom)

Standard size: 600mm x 600mm

System weight: 52 kg/m<sup>2</sup> for finish floor height FFH 250mm

Free Lay System: high density (1,500kg/m<sup>3</sup>) fiber reinforced calcium sulphate panel with self-extinguishing melamine edge trim, free lay-on all steel stringerless iT80 Pedestal sub-structure for FFH 50mm to 1000mm.

### 4. Loading Class

RAL-GZ941 - Load Class 2 (stringerless)

PSA MOB - Medium Grade (stringerless)

Test Description	Stringerless System	Snap-on Stringer System
Concentrated Load (<2.5mm deflection)	4.5 KN over 25mm square	6.75 KN over 25mm square
Ultimate Concentrated Load	9 KN over 25mm square	13.5 KN over 25mm square
Uniform Distributed Load	20 KN/m <sup>2</sup>	30 KN/m <sup>2</sup>
Ultimate Uniform Distributed Load	40 KN/m <sup>2</sup>	60 KN/m <sup>2</sup>
Pedestal Axial Load (over the area of head vertically)	18 KN	
Pedestal Axial Load (over 1/4 area of head vertically)	13.5 KN	
Pedestal Horizontal Load (5N at pedestal head for free play)	deformation <1.5mm over 340mm pedestal height	
Pedestal Horizontal Load (270N at centre of pedestal head)	deformation <1mm over 190mm pedestal height	
Pedestrian Dynamic Load	movement <1 mm (vertically and horizontally)	
SoFr (40 kg sand) & Hard Body (4.5 kg steel) Imoact	no collapse	

Remark: stringer system shall be recommended for FFH 500mm or above.

### 5. Fire Resistance

DIN 4102: Part 1 - Building Materials Class, A2 (non-combustible)

DIN 4102: Part 2 - Fire Resistance, F30 (integrity, stability and insulation)

BS476: Part 6 & 7 - Fire Propagation and Surface Spread of Flame, Class 1

Remark: fire resistance of F30 - F90 would be achieved by core thickness 24mm to 48mm.

### 6. Air Leakage Rate

Pressure 2.5mm wg	PSA MOB 60 liters/min./meter
Pressure 25mm wg	PSA MOB 245 liters/min./meter

## 7. Electrical Continuity and Electrostatic Properties

Complied to IEE Regulations (< 0.2 ohm) by connection of copper eyelet on gasket of pedestal to GMS at bottom of panel.

Complied to the electrical resistance requirement by conductive core (1 x 10<sup>8</sup> ohms) and anti-static HPL.

## 8. Acoustic Properties

Sound reduction index (horizontal)	DIN 52210: 52 dB (without covering)
Sound reduction index (vertical)	DIN 52210: 64 dB (without covering)
Impact sound level index (horizontal)	DIN 52210: 63 dB (without covering)
Impact sound reduction index (vertical)	DIN 52210: 19 dB (without covering)

Remark: test results correspond to partition wall lay on raised access floor without sound barrier underneath.

## 9. Unique Properties

Fully primered core - not only resistant to humidity, but also wetness (sprinkler).

Fully primered core - prevent dust generation during air plenum application and so absolutely harmless to health.

Fully primered core - penetrated into calcium sulphate as permanent protection while aluminum foil may be damaged.

Conductive oore - ensure electrostatic properties without the need of conductive edge trim and conductive adhesive.

Melamine edge trim - self-extinguishing & creaking free for excellent walk-on-comfort.

## 10. Green Product

IBR Certificate (German Standard) for safety use to organic livings and ecological building materials.

VOC Emission - complied to HK Green Label requirement (ASTM 5116-97) and International Standard ISO 16000.

## 11. Unique Warranty

Up to 30 years limited joint warranty for materials & workmanship by manufacturer and authorized applicator.

## 12. Project Reference

### SWC Raised Access Floor

Education Resources Centre	4,000 m <sup>2</sup>	AIA Tower	35,000 m <sup>2</sup>
No. 1 Peking road, TST	11,000 m <sup>2</sup>	248 Queen's Road East	30,000 m <sup>2</sup>
IFC Phase I	60,000 m <sup>2</sup>	Dairy Farm, Devon House	7,000 m <sup>2</sup>
Millennium City	100,000 m <sup>2</sup>	PCCW & Dorset Towers	140,000 m <sup>2</sup>

### MERO Raised Access Floor

Internet City, Dubai	110,000 m <sup>2</sup>	Konzernzentrale Bayer. Germany	20,000 m <sup>2</sup>
Fortune Plaza, Shanghai	25,000 m <sup>2</sup>	IBM Headquarters. Sweden	8,000 m <sup>2</sup>
CORP 2000 Ltd.	500 m <sup>2</sup>	ILINK	1,400 m <sup>2</sup>
China Light & Power Ltd. - Shamshuipo	850 m <sup>2</sup>	Alice Ho Miu Ling Nethersole Hospital	1700 m <sup>2</sup>
International Bank of Asia	160 m <sup>2</sup>	PCCW-HKT Ltd.	90 m <sup>2</sup>
GEIS International Incorporation	450 m <sup>2</sup>	MAERSK HK Ltd.	300 m <sup>2</sup>
Polaris Securities (HK) Ltd.	100 m <sup>2</sup>	Mei Ah (HK) Ltd.	370 m <sup>2</sup>
PINGAN.COM	1,700 m <sup>2</sup>	HK Times	300 m <sup>2</sup>
TOM.COM	400 m <sup>2</sup>	ABC Communications (Holding) Ltd.	300 m <sup>2</sup>
British Telecom	500 m <sup>2</sup>	Allied Winner International Ltd. - Phase I	700 m <sup>2</sup>
NOVA Network Ltd.	1,100 m <sup>2</sup>	AIG Regional Call Centre	210 m <sup>2</sup>
HK Economics Times	250 m <sup>2</sup>	HSBC - Kowloon Bay	950 m <sup>2</sup>