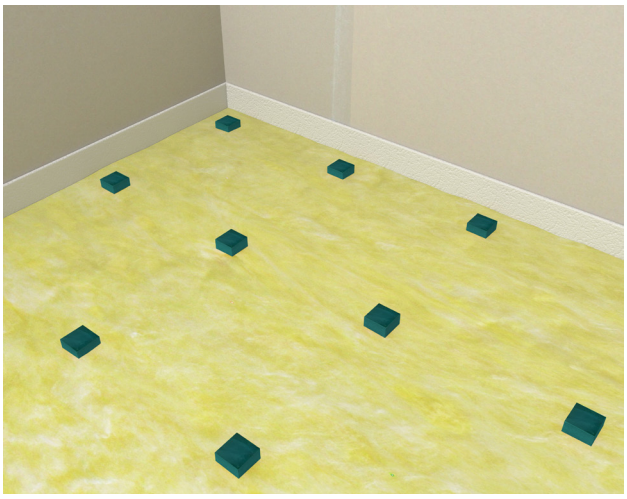
PAV System

CMSDANSKIN ACOUSTICS

Technical Data Sheet

CMS Danskin Acoustics PAV System is a cost-effective and high-specification floating floor system. This system can be supplied as individual components or as a complete system which provides a quick and easy installation for contractors, which is beneficial in reducing the time and cost of onsite labour.



APPLICATION

The CMS Danskin Acoustics PAV System is suitable for many applications including gyms, cardio areas, functional zones, cinemas, bowling alleys, dance studios, and other areas such as plant room floors and roof-top floating slabs. For external applications, waterproofing must be considered.

QUOTATIONS

To quote a floating floor system we require the following information:

- Dead Load
- Live Load
- Natural Frequency required
- Available build-up height

Any special requirements (e.g. minimum / maximum pad deflection; minimum void height etc.) should also be noted.

CMS Danskin Acoustics will derive the most suitable solution to meet your specific target in terms of the Natural Frequency performance. Where there is a Natural Frequency requirement of the floor, this can be calculated from the pressure applied to the pads. The type of pad is then selected to suit this as well as the Fn needs. The airspace performance is also considered.

SYSTEM INFORMATION

Roll Size:
8.4m x 1.2m x 50mm
(Roll includes pads @ specific centres)

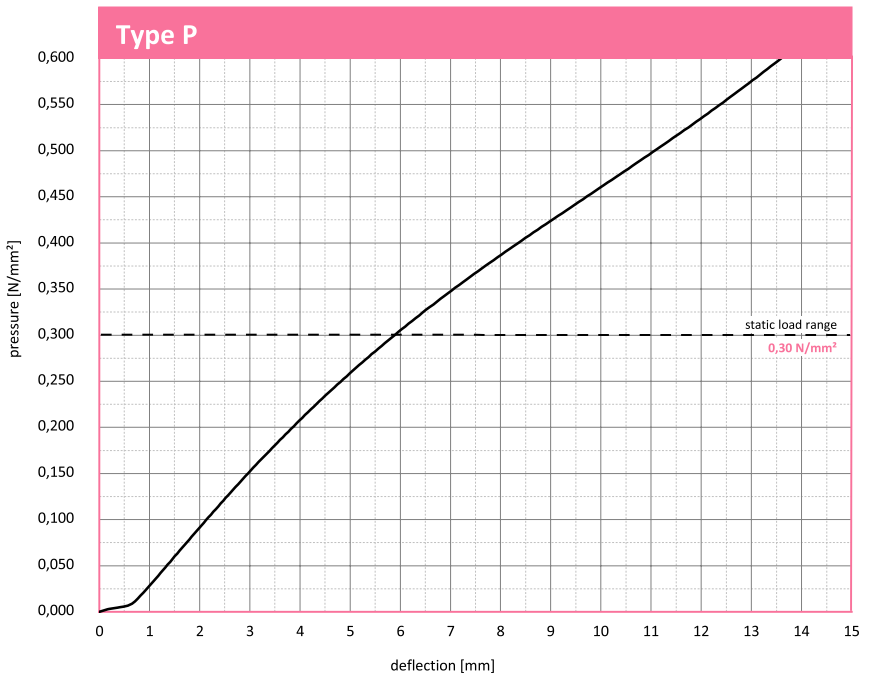
Standard Pad Size:
50 x 50 x 50mm (other pad sizes available)
Various void heights possible

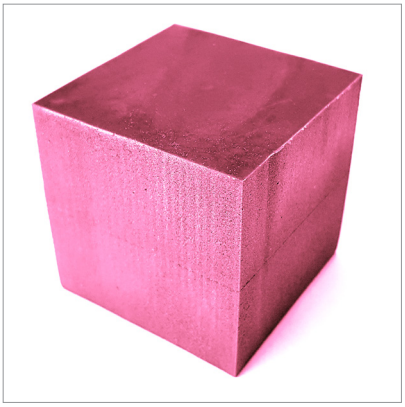
Mineral Wool Roll:
40mm @ 33kg/m^3

Typical Pad centres:
300mm, 400mm, 600mm OCEW,
400mm x 300mm and 600mm x 400mm.

Pad type and centres can be adjusted to suit the Floor Dead + Live Load and Natural Frequency requirement.

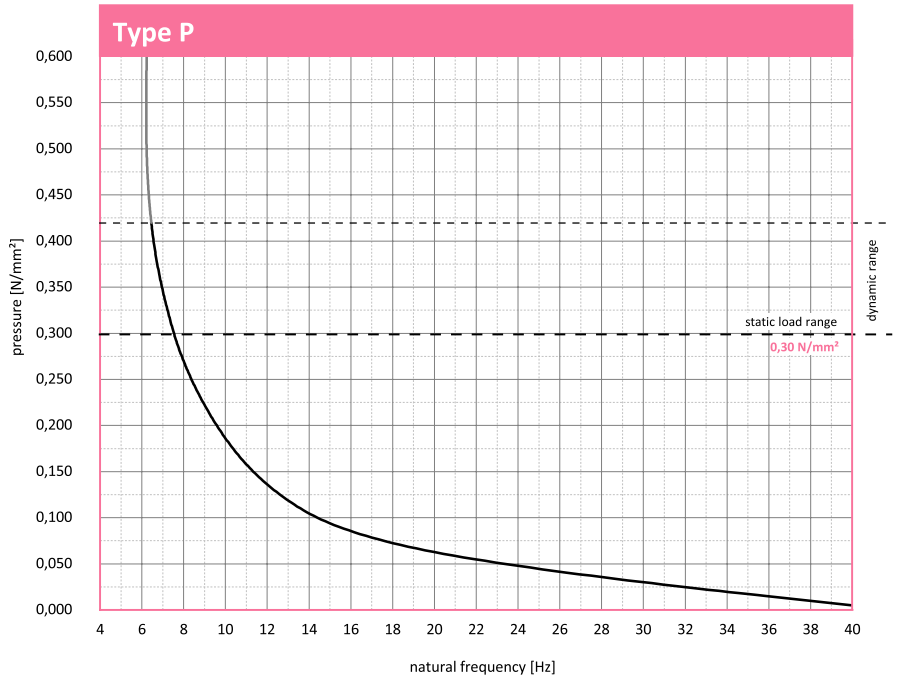
LOAD DEFLECTION





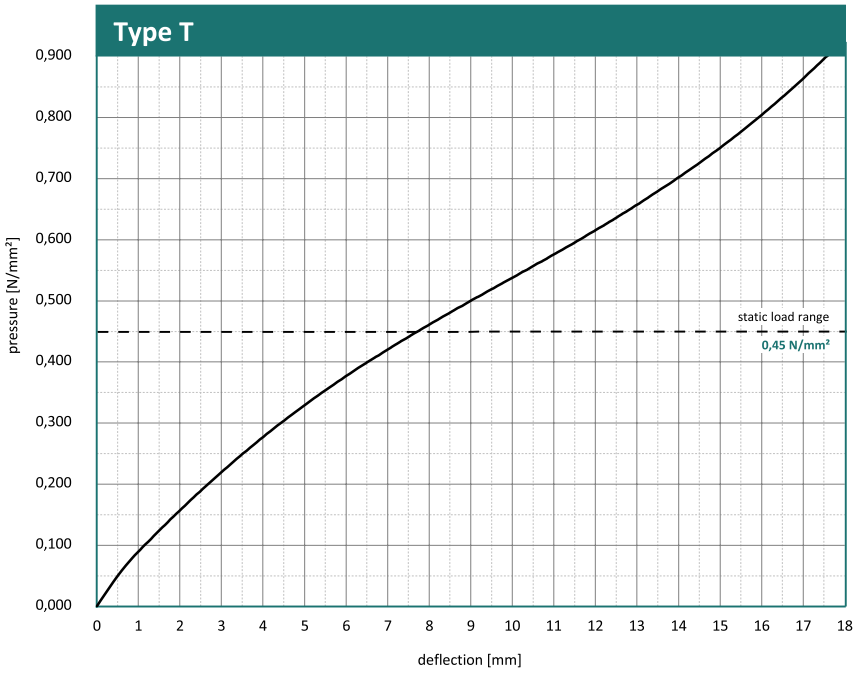
Examination of deflection in accordance to DIN EN 826, between two stiff panels. Illustration based on the third loading.
Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 50 mm x 50 mm x 50 mm.

NATURAL FREQUENCY

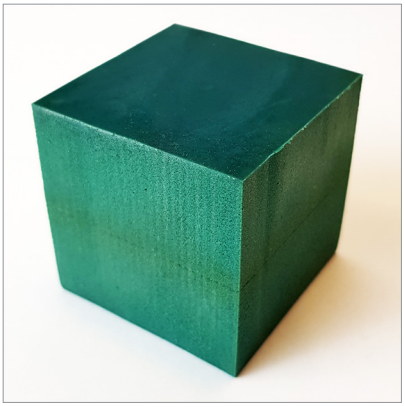


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness
of **Type P** on a rigid base. Dimensions of test specimens 50 mm x 50 mm x 50 mm.

LOAD DEFLECTION

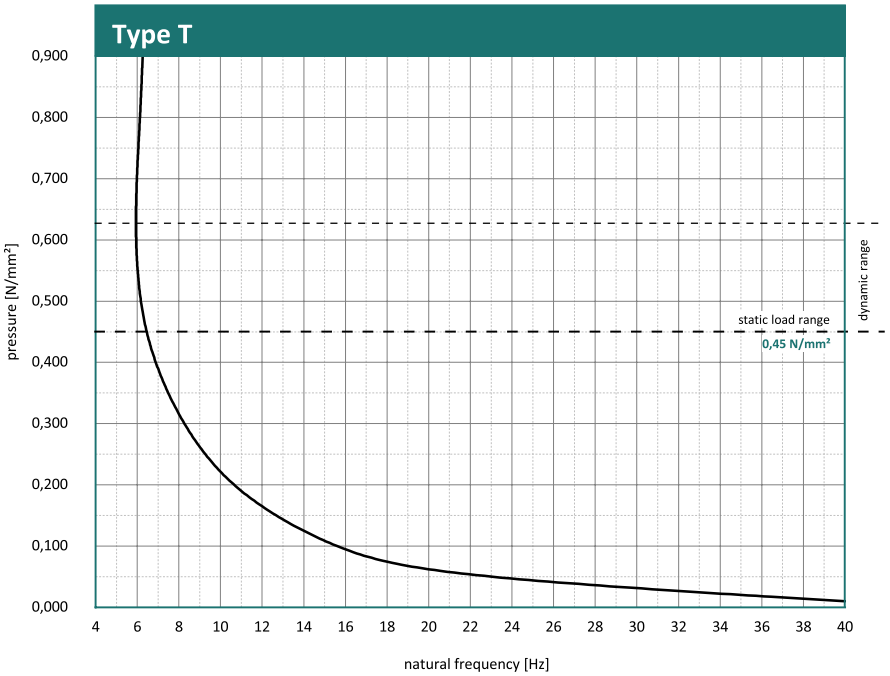


Examination of deflection in accordance to DIN EN 826, between two stiff panels. Illustration based on the third loading.
Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 50 mm x 50 mm x 50 mm.



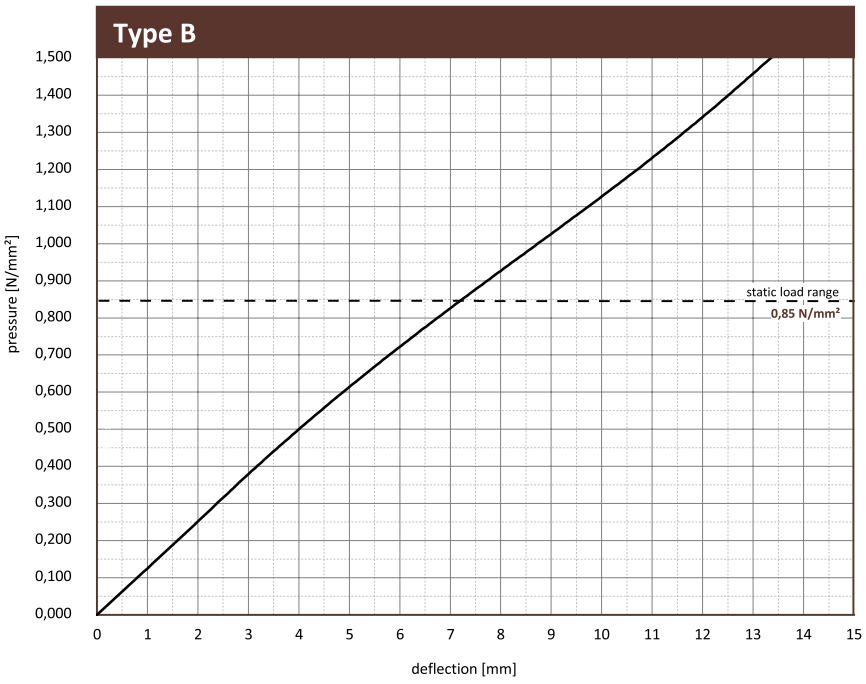
These Isolators are made from mixed cell p/u foam. These are available in various grades to support various loads. Standard material thicknesses are 12.5mm, 25mm, 37.5mm and 50mm. Other thicknesses are available. Standard floating floor pads are 50 x 50 x 50mm, and these isolation pads can achieve a 6Hz Natural Frequency giving exceptional performance. This is detailed in the performance graphs shown and the standard grades used in this application are Type P, Type T and Type B. Larger pads can be produced if a larger airspace is required.

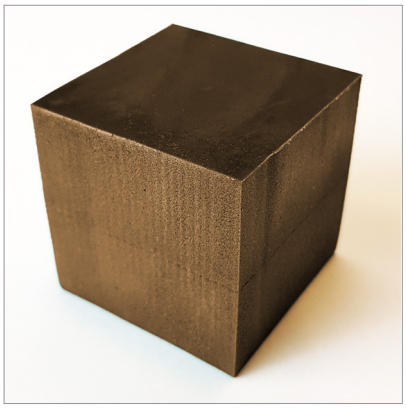
NATURAL FREQUENCY



Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness
of **Type T** on a rigid base. Dimensions of test specimens 50 mm x 50 mm x 50 mm.

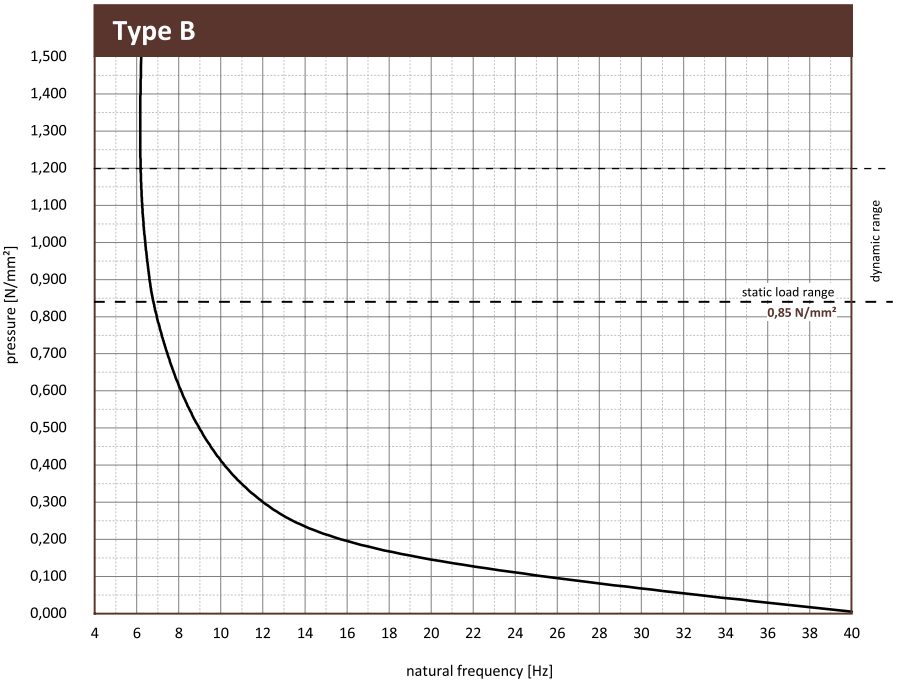
LOAD DEFLECTION





Examination of deflection in accordance to DIN EN 826, between two stiff panels. Illustration based on the third loading.
Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 50 mm x 50 x 50 mm.

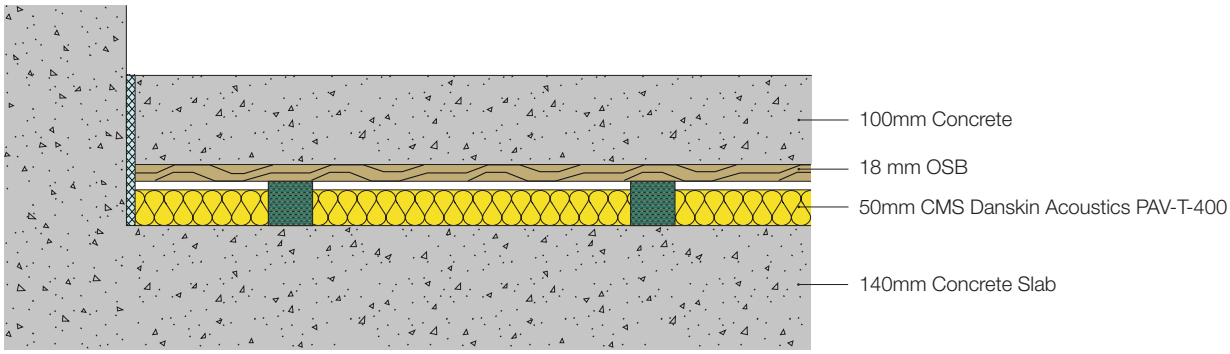
NATURAL FREQUENCY



Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness
of **Type B** on a rigid base. Dimensions of test specimens 50 mm x 50 mm x 50 mm.

ACOUSTIC TEST RESULTS

The values shown in brackets represent he spectrum adaptation term.

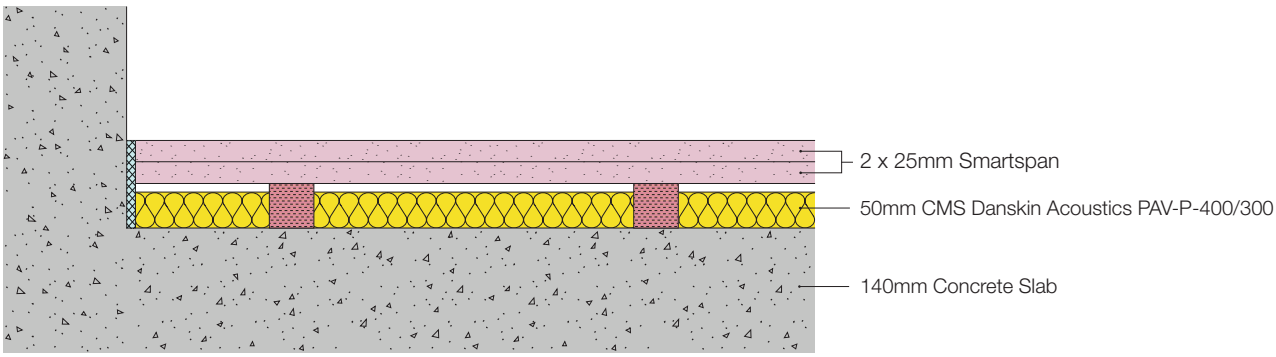


Impact

Ln,r,w	33dB
ΔLw	45dB

Airborne

Rw (C; Ctr; C50-5000; Ctr,50-5000)	77** (-2; -6; -1; -6) dB



Impact

Ln,r,w	35dB
ΔLw	43dB

Airborne

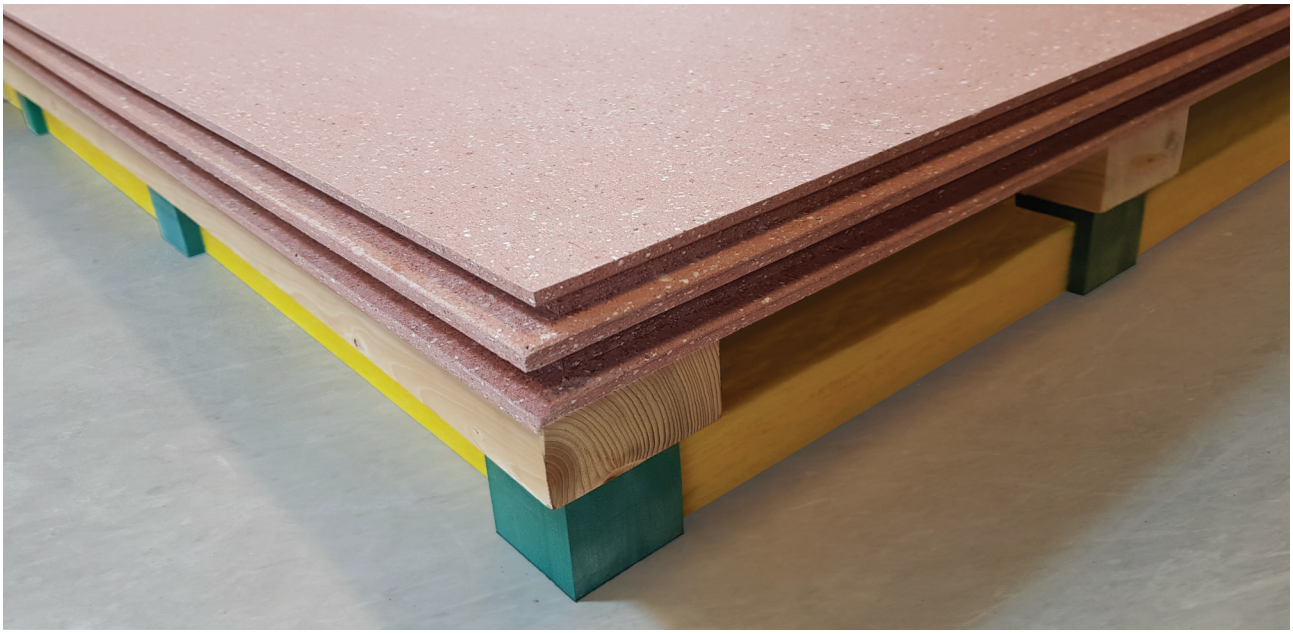
Rw (C; Ctr; C50-5000; Ctr,50-5000)	75** (-1; -5; -1; -9) dB

(Results obtained in accordance with ISO 717-1:2020)

Data reported with ** are not included in accreditation scope. The above and other test reports are available on request.

INCREASED AIRSPACE HEIGHT

Various airspace heights are possible with the RF Floating Floor system. This can be achieved with various sized pads or with the use of a timber batten as shown below.



When using battens for an increased airspace, no fixings should be screwed into the pad or the perimeter, and battens must be at least the width of the pad, as shown.

LIVERPOOL CINEMA FLOOR

The system was designed to meet the project specification of 14Hz or lower with pads spaced and sized to meet this target under Dead Load and Live Load. Our system was able to better this target under DL + LL and DL + 1/3 LL achieving 7.5Hz respectively.

CMSDANSKIN ACOUSTICS

T 01925 577711 (Central)
E info@cmsdanskin.co.uk
T 01698 356000 (Scotland)
E enquiries@danskin.co.uk
W **www.cmsdanskin.co.uk**

CMS Danskin Acoustics is part of the PERFORMANCE TECHNOLOGY GROUP

www.PerformanceTechnologyGroup.com

Issue 1 - 12/2024 JW