



## **PU Foam system to improve sound insulation**

Poor sound insulation is a problem for buildings, not only in purely constructive terms, but it also has an impact on the well-being and health of its occupants. Therefore, the interior noise of buildings has become a problem that requires effective constructive solutions to ensure compliance with current regulations.

**Falcon Solution Ltd** is a importer and distributor of PU systems that have multiple applications in the construction sector and in other relevant sectors such as the industry. Below, we present a set of injected and sprayed **PU system indicated to improve acoustic insulation**.

### **Systems of injected and sprayed PU foam for sound insulation**

The **Phono Spray I-905, S-904 and S-907** systems are thermoacoustic PU systems that are applied by “in situ” projection or injection, obtaining low and medium density rigid open cell foams with good acoustic absorption properties.

The application of these systems improves the acoustic insulation of the housing in a global way, while reinforcing the hydrothermal behavior of the enclosure, thus complying with the regulations for protection against noise. In addition, these systems do not contain foaming agents that damage the ozone layer.

# Phono Spray I-905

The **Phono Spray I-905** injected PU system is applied by casting with high pressure equipments, with heating, and a mixing ratio of 1:1 in volume. Its main application is the improvement of the thermoacoustic insulation to the aerial noise in enclosures of renovation buildings, as well in partitions between neighbors as in external facades.

The **adhesion** of the **Phono Spray I-905** system is excellent with all materials used in construction (concrete, ceramics, laminated plaster, wood, etc.) as long as they are clean, dry and free of dust and grease.

Features	
Apparent bulk density	12±2 kg/m <sup>3</sup>
Closed cells	<20%
Reaction to fire	Euroclass F
Water Permeability	≤2 kg/m <sup>2</sup>
Water vapor resistance factor (μ)	≥5
Acoustic absorption	0,5
Resistivity to air flow r	5-6 kPa s/m <sup>2</sup>
Free applied density	18±2 g/l
Thermal conductivity	0,038 W/mK

# Phono Spray S-904

The **Phono Spray S-904** system is applied by "in situ" projection, obtaining open cell foam of low density (9-11 g/l) with good acoustic absorption properties. Its objective is the improvement of thermoacoustic insulation against airborne noise, and it can be applied both in partitions between neighbors and in façades.

Benefits	
Apparent bulk density	10±1 kg/m <sup>3</sup>
Closed cells	<20%
Reaction to fire	Euroclass F
Water Permeability	≤3.5 kg/m <sup>2</sup>
Water vapor resistance factor (μ)	≥5
Acoustic absorption	0,5
Resistivity to air flow r	5-6 kPa s/m <sup>2</sup>
Free applied density	10±1 g/l
Thermal conductivity	0,037 W/mK

# Phono Spray S-907

The main application of the **Phono Spray S-907** is the improvement of acoustic insulation to noise in floors, especially to impact noise in horizontal divisions, thanks to its porosity and elasticity. The system is applied by projection "in situ" obtaining medium density open cell foams (55-65 kg/m<sup>3</sup>). **Phono Spray S-907**, like the previous systems, is a constructive solution that improves the overall thermoacoustic insulation of the building.

Benefits	
Apparent bulk density	55±10 kg/m <sup>3</sup>
Closed cells	<20%
Reaction to fire	Euroclass F
Water Permeability	≤1 kg/m <sup>2</sup>
Water vapor resistance factor (μ)	≥5
Acoustic absorption	0,32
Resistivity to air flow r	-
Free applied density	43±3 g/l
Thermal conductivity	0,037 W/mK

## Benefits of using spray foam insulation for soundproofing

The benefits of using spray foam insulation are:

- A decrease in utility bills because it's terrific at its job.
- Excellent thermal insulation.
- Prevention of sound from traveling in and out of rooms or buildings.
- A terrific moisture and air barrier.
- Contractors can apply it to ceilings, walls, and wall crevices and cavities.
- It does have some sound deadening benefits.

It may not be the perfect choice for soundproofing, but it can keep your home protected in many ways.



**Basically PU Foam is Heatproof, Soundproof, Waterproof materials.**