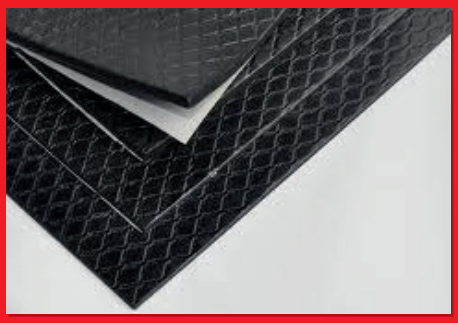

# DAMPING SHEET TYPE DS

INS DS damping sheet is a bitumen enriched, self adhesive backed material manufactured from a mixture of bitumen, plasticizers and elastomers. The adhesive backing is protected by a silicon release paper that permits easy storing and stacking. INS DS damping sheet is black in colour (DS13 dark grey).

## ADVANTAGES

- Available in sheet form
- Flexible and easily cut
- Easy to handle and install
- Available in four standard weights
- Provides a cost effective sound proofing solution

## PHYSICAL INFORMATION

Damping sheet type DS is available in four standard weights. * Nominal weight.

| | |
|---|---|
| Standard sheet size | 1.5m x 1.0m<br>1.08m x 1.02m (DS 13 only)<br>Available in cut to size components, details available upon request. |
| DS 13 | Thickness: 1.7mm<br>Weight: 1.7kg/m²* |
| DS 03 | Thickness: 1.5mm<br>Weight: 3kg/m²* |
| DS 05 | Thickness: 3mm<br>Weight: 5kg/m²* |
| DS 10 | Thickness: 5mm<br>Weight: 10kg/m²* |

## TECHNICAL INFORMATION

| | |
|---|---|
| Density | 1.8 to 2.0 gr/cc |
| Flammability (FMVSS 302) | Class SE |
| DS 13 only | UL94 HB<br>Self extinguishing<br>FMVSS302 |
| Combustion speed (ISO 9772) | <20mm/min |
| Flexibility at >10°C | 20mm diameter cylinder |
| Adhesive instant tack (ASTM D 3121) | <10cm |
| Adhesive cohesion (FINAT 8) | >4 hours |
| Service temperature | -30°C to + 90°C |
| Shelf life | 6 months at 10 to 35°C |

## APPLICATIONS

- Sound proofing of formed steel or aluminium panels and cabinets
- Steel panels in the automotive industry and agricultural machinery
- Widely used in air-conditioning ductwork and the white goods industry
- Used in conjunction with INS range of Acousti-Lag lagging products to dramatically enhance acoustic performance

## ACOUSTIC PERFORMANCE

INS DS damping sheet material is a high performance material that has been acoustically tested at a UKAS certified independent test laboratory.

Tested and rated according to:

BS EN ISO 717-1:1997
BS EN ISO 140-3:1995
BS EN ISO 2750:Part3:1995

### *Transmission loss data*

| | Frequency (Hz) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Material | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| DS 13 | 16 | 10 | 13 | 16 | 20 | 25 | 31 | 37 |
| DS 03 | 19 | 13 | 17 | 21 | 26 | 31 | 36 | 42 |
| DS 05 | 20 | 15 | 19 | 23 | 28 | 33 | 38 | 44 |
| DS 10 | 22 | 20 | 24 | 29 | 34 | 39 | 43 | 44 |

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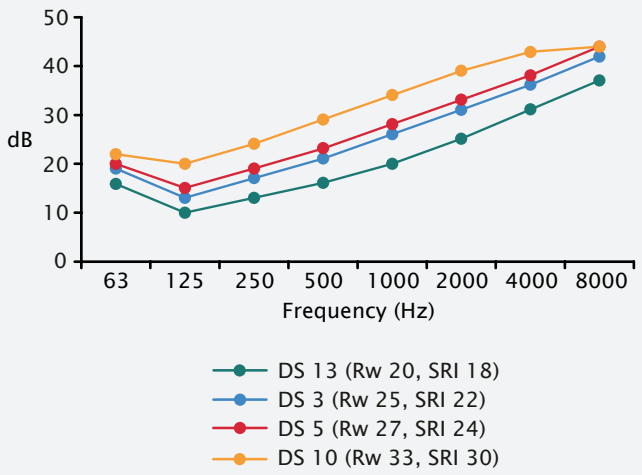
Acoustic Insulation and Anti-vibration Products

## ACOUSTIC PERFORMANCE (CONT)




### *Acoustic data*

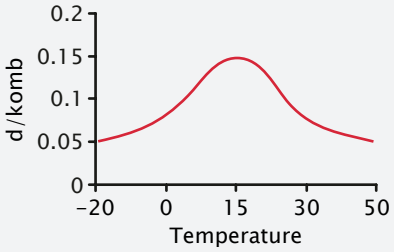
| | DS 13 | DS 03 | DS 05 | DS10 |
|---|---|---|---|---|
| Loss factor* | 0.14 | 0.152 | 0.22 | 0.35 |
| Decay rate (dB/s)** | 11 | 15 | 40 | 98 |

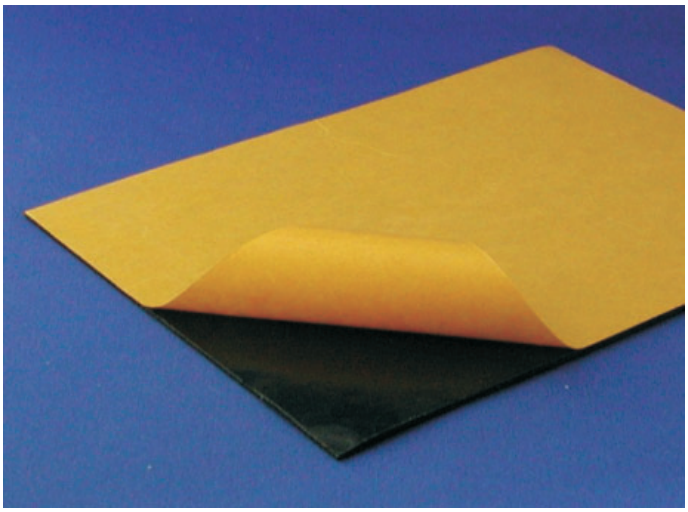
* Test method: Oberst @ð 20°C 299Hz freq (DIN 53440)
** Test method: Geiger 5mm plate SAE @ 20°C.
Decay rate is the rapidity with which a sound level attenuates after the source of sound is switched off.

### *Sound Reduction Index*

| Hz | 125 | 250 | 500 | 1K | 2K | 4K | |
|---|---|---|---|---|---|---|---|
| dB | 27 | 32 | 32 | 33 | 41 | 43 | 0.8mm steel +DS10 |
| dB | 8 | 14 | 20 | 26 | 32 | 38 | 0.8mm steel only |

### *Loss factor (DS13 only)*



## INSTALLATION GUIDELINES

INS DS damping sheet is simple to install. When selecting the damping sheet weight to use, it is recommended that the thickness of the DS damping sheet is 1 to 2 times that of the panel thickness being treated.

As the DS damping sheet is supplied with a self-adhesive backing, it is important to ensure that the surface is clean and free from dust and grease. After aligning the damping sheet, peel back the release paper and adhere to the surface. To ensure that sufficient pressure is equally applied to the damping sheet, use a pressure roller or pressure pad. Adhesion is enhanced at temperatures above 30°C.

It is important to note that in cold weather, care should be taken when handling the DS damping sheets as the material can be quite brittle.

## INSTALLATION SERVICE

In addition to supply of this product Inspired Noise UK offers a competitively-priced installation service anywhere in the UK. Use of our service ensures that installation is performed to the highest standards by tradesmen fully experienced in the specialist skills of fitting acoustic materials correctly.

For further details contact our technical team on 0151 677 8650.

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