









## TEKNO**SOUND**

### The solution to **noise** problems

**TEKNOSOUND** is Teknisol's answer for **high performance solutions to noise** transmitted through solid materials or airborne, offering high acoustic damping and absorption performance at the highest level in just **12 mm thick.** 

**TeknoSound** is a **pre-coupled bi-component product**, composed of a 10 mm elastomer layer combined with a 2 mm layer with thick high intensity mass and weighing 4 kg/m<sup>2</sup>.

It resists **extreme temperatures** and drops in temperature without losing efficiency (-40/+110 °C). The product is supplied at a height of 1 m and is available both in a **standard version** and with **adhesive**.

# Fields of use of TEKNO**SOUND**

TEKNOSOUND is an extremely versatile and flexible product, simple to install and apply. It is ideally used in 4 main applications, in the civil but also industrial environment:

**INSULATION OF WALLS, APPLIED IN CAVITIES** (Flat vertical surfaces, often used in the version with adhesive)

INSULATION OF WATER DRAINAGE TOWERS AND TUBING IN GENERAL (circular and 90° bent ducts)

INSULATION AND DAMPING OF VIBRATIONS IN VENTILATION DUCTS (rectangular and T connection ducts)

UNDERFLOOR AND FALSE CEILING INSULATION (flat horizontal surfaces, ceiling enclosures)







## General application **CONDITIONS**

TEKNOSOUND is a Teknisol acoustic mat designed for technical applications on walls, floors and ducts. It can be applied on the most common bases such as plasterboard, wooden panels, metal and plastic tubing, following the manufacturer's instructions. In general, adhesion to bases must be tested before proceeding with application.

NOTE: The base must be intact, clean, dry, free of dust, rust, flaking and contaminants from other materials. If necessary, pre-treat with suitable products for the purpose, compatible with TEKNOSOUND.



Cutting and trimming TEKNOSOUND panels can done using a sharp knife or blade. Carry out the work on a clean workbench.



## **APPLICATION** tools



Tape measure



Chalk





Drill



Fixed compass



Aluminium tape



Thickness

compass



Ruler



Screws with gaskets in neoprene



Knife

Scissors

Metal tie

Roller

Marker

# Laying on flat SURFACES





#### Take measurements

and apply them to the smooth surface of Teckosound, with the help of a ruler.



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**Cut the panel** using a knife and the ruler as a support point.

## Remove the protective film

from Tecknosound by approx. 15 cm and position the panel tight to the support.





Firmly press on the panel portion without film to stick it to the support and continue to remove the film until complete adhesion.



**On large surfaces** proceed to coat arranging the panels with staggered joints.



### If you need to reinforce the

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**partition wall,** use the screws with gasket in neoprene by positioning them at a distance of 15 cm from one another.

# Rectangular duct **INSULATION**





#### **Take measurements**

of the duct and apply it on the Teckosound smooth surface, with the help of a ruler and pencil. Proceed to coat the first side (A) (lower), cutting the panel to the width of the duct and for the next two sides increasing the size of the side by adding the thickness of the mat once (B) and twice (C).



#### Apply the aluminium tape on all discontinuous points.



#### Install the metal ties

around the duct every 50 cm. To protect the edges, you can use corner profiles to apply before the ties.

# Circular duct









For a segment or L-shaped bend, **3 dimensions** should be taken as a reference:





TUBE SIZE (inches)	OF TUBE (mm)	CENTRAL RADIUS (mm)	NUMBER (#) OF SEGMENTS	L1 (mm) = 100(#+1)
0,5	21,3	38	MITRE	
0,75	26,7	28,5	MITRE	
1	33,4	38	MITRE	
1,25	42,2	47,5	MITRE	
1,5	48,3	57	MITRE	
2	60,3	76	3	400
2,5	73	95	3	400
3	88,9	114	3	400
3,5	101,6	133	3	400
4	114,3	152	4	500
5	141,3	190	4	500
6	168,3	229	4	500
8	219,1	305	5	600
10	273,1	381	7	800
12	323,9	457	7	800
14	355,6	533	9	1000
16	406,4	610	9	1000
18	457	686	11	1200

### To determine the number of segments for the 90° bend, consult the table below.

16	406,4	610	9	1000
18	457	686	11	1200
20	508	762	11	1200
22	558,8	838,2	11	1200
24	610	914	13	1400
26	660,4	990,6	13	1400
28	711,2	1066,8	13	1400
30	762	1143	13	1400
32	812,8	1219,2	13	1400
34	863,6	1295,4	15	1600
36	914	1372	15	1600
38	965,2	1447,8	15	1600
40	1016	1524	15	1600
42	1066,8	1600,2	15	1600
44	1117,6	1676,4	17	1800
46	1168,4	1752,6	17	1800
48	1219,2	1828,8	17	1800
50	1270	1905	19	2000
52	1320,8	1981,2	19	2000
54	1371,6	2057,4	19	2000
56	1422,4	2133,6	21	2200
58	1473,2	2209,8	21	2200
60	1524	2286	21	2200
62	1574,8	2362,2	21	2200
64	1625,6	2438,4	23	2400
66	1676,4	2514,6	23	2400
68	1727,2	2590,8	23	2400
70	1778	2667	23	2400
72	1828.8	2743.2	23	2400

L<sub>1</sub> = (1 + number of segments) x 100 mm









L1 = (1 + number of segments) x 100 mm







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Use a new model and mark the length LT equal as the circumference C<sub>1</sub>





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starter piece

## **COMFORT** without compromise

The solution to **NOISE** problems

The properties of acoustic damping by TeknoSound, in an absolutely compact thickness of 12 mm allows you to considerably reduce transmission of sound waves via solid or airborne means, contributing to generating high levels of acoustic comfort.





#### To cover **a T connection**

Measure the circumference and diameter of a tube, to create a template to reproduce on Tecknosound.









Draw a radius arc =  $1/2 d_1$ 



#### Pressing the left side of the arc as the origin, mark a distance of 1/2 d1 along the arc. Trace an intersection line up to the top corner and cut the profile as shown.





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Use a profile to mark two sheets on ArmaComfort Barrier, as shown below.





L = desired T connection length (typically > 50 mm).



Use a new model and mark the length LT equal as the circumference  $C_{1}$ 

# False ceiling







Measure the **dimensions of the ceiling** implementing them on the Teknosound panels.

Add 10 cm to the height to stick the panel to the slab.

Fix the panel to the U profile used to hold the plasterboard, using screws with gasket in neoprene, **spaced 10 cm** from one another.



**Stick the adhesive surface to the slab** taking care not to glue under traction.



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