

DEWEB® NTA: Acoustical purpose for sandwich panel

**IMPROVED ACOUSTICAL ABSORPTION,
BEST SOLUTION FOR PERFORATED FACE SANDWICH PANEL**



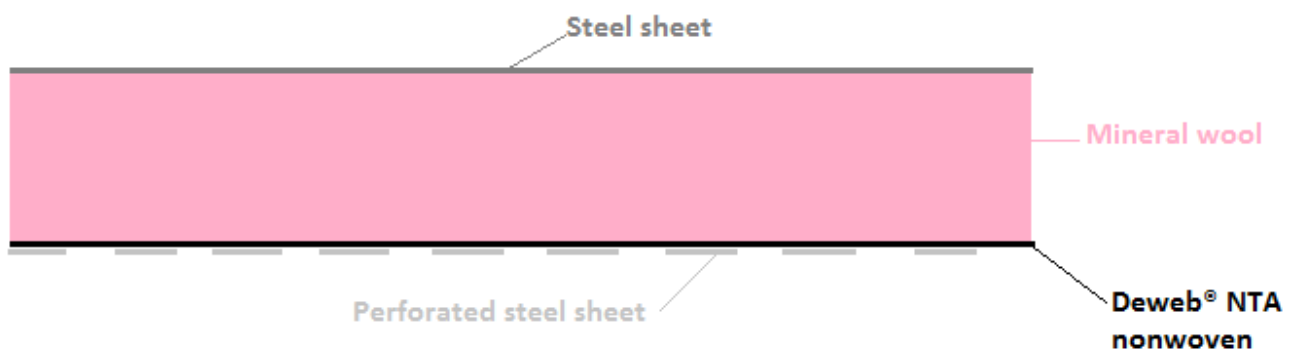
Deweb® NTA is a high-performance product designed to mask mineral wool on perforated side, to keep mineral fibers inside the panel so that no fibers are coming inside rooms, to keep a good looking visual aspect of panel and mainly to bring acoustical absorption performance to the top such panels can bring to the market.

Deweb® NTA is self-adhesive nonwoven with thermofixed Polyester fibers, needle-punched so that the mix cohesion/thickness allow the better aerial sound absorption effect for such range of product.



The adhesive coating with lines of adhesive spaced by several mm in width without adhesive, brings a better acoustical effect to panels fitted with it.

As it is recommended for this use, Deweb® has been classified B, S1, d0 with Euroclass norms and as it is made of Polyester fibres, Deweb doesn't help for microorganisms' growth.



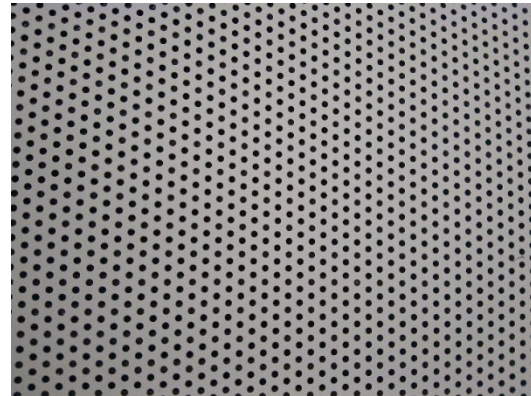
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Acoustical performances are as follows on a basis of :

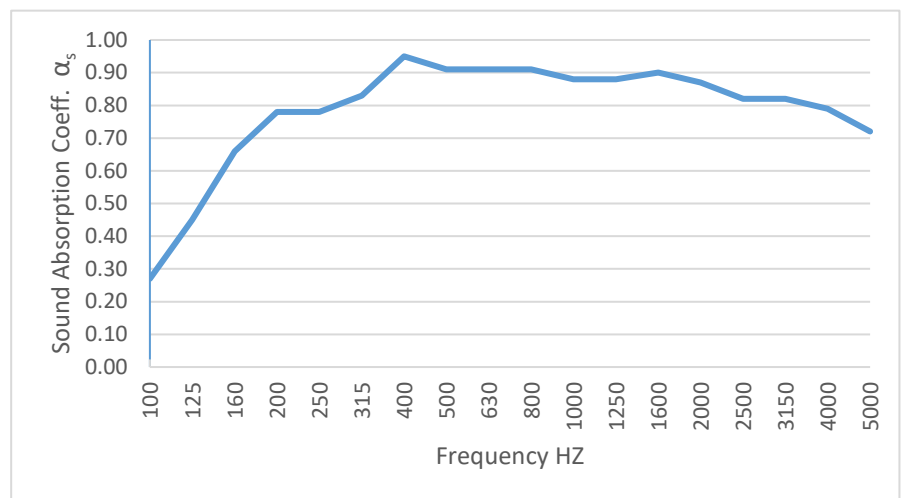
Sandwich steel panel one perforated side with holes diameter 3mm spaces of 5mm, perforation rate 40% of surface, mineral wool thickness 100mm , density 120kg/m³, perforated steel sheet fitted with Deweb® NTA085SP in inner side, nonwoven glued on mineral wool. Total weight of 19kg/m².

Frequency Hz	Sound Absorption Coeff. α_s
100	0.27
125	0.45
160	0.66
200	0.78
250	0.78
315	0.83
400	0.95
500	0.91
630	0.91
800	0.91
1000	0.88
1250	0.88
1600	0.90
2000	0.87
2500	0.82
3150	0.82
4000	0.79
5000	0.72



Sound Absorption Coefficient α_s

According to ISO 354-2003



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According to ISO 11654:1997

Practical sound Absorption coefficient α_p :

α_p , 125 Hz	α_p , 250 Hz	α_p , 500 Hz	α_p , 1000 Hz	α_p , 2000 Hz	α_p , 4000 Hz
0,45	0,80	0,90	0,90	0,85	0,80

Weighted sound absorption coefficient α_w :

$\alpha_w = 0.90$

Absorption Class: A

Storage, Application, Bonding conditions

Storage

Deweb® NTA Felts supplied in rolls

The felt is stored in a dry place, relative humidity <65%, temperature > 0 °C, not subject to rain, sunlight or heat source > 70 °C. Expiration of one year from date of manufacture for not used felt. In case a roll has been exposed to solar rays, Eliminate at least one turn of the roll.

Application on steel sheet

Deweb® NTA Felt is applied on inner side of perforated steel panel with a minimum pressure of 100kPa over the entire surface of the felt.

Steel coils are stored for at least 24 hours to climatic conditions of application. If residual condensation, the sheet is dried or wiped efficiently.

The application of felt on lacquered sheet is at a minimum temperature of 15° C without condensation on the sheet, without dirt or dust.

The coating of the sheet contains no plasticizer or another product with the same effect on the adhesive side of the Felt; e.g. Plastisol sheets are not compatible with long lasting adhesion.

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The lacquered sheet is free of fat (grease, oil, glycerin, silicone, anticorrosive ...) or solvent may have a solvent action on the adhesive (acetone, hydrocarbons, chlorinated solvents ...)

The lacquering of the sheet has a surface tension compatible with bonding (greater than or equal to 42 dynes) and a roughness compatible with bonding.

Bonding Deweb® NTA Felt on mineral wool

Bonding Deweb® NTA Felt on mineral wool needs to avoid to spray glue to close on the felt to avoid too much absorption in the nonwoven. Glue used for this operation should be determined not to liquid to limit absorption by the nonwoven and by mineral wool as well.

The best is to apply glue on mineral wool, but sometimes application on twice is needed. Preliminary trial should be done.