

# **GENUGTEN AGRI**

PROFESSIONALS IN ANIMAL HOUSING



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UW DE

## GENUGTEN AGRI PROJECTS BV

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The Netherlands

'SOFT-AIR' VENTILATION CEILING



# ALREADY 25 YEARS OF 'SOFT-AIR' VENTILATION CEILING!

The 'Soft-Air' ventilation ceiling was developed more than 25 years ago by Genugten Agri B.V.

Since then we have continuously improved and further developed our product. Improvements at the ceiling are constantly being tested at our own pig farms. With years of experience and development, we guarantee to supply you with one of the best systems for the ventilation of your stables.

# **'SOFT-AIR' VENTILATION CEILING**

# THE BEST CHOICE FOR YOUR FARMS CLIMATE!

# **'SOFT-AIR', THE CEILING WITH THE MOST BENEFITS**

By applying a 'Soft-Air' ventilation ceiling you are assured of the best ventilation system at most days of the year. The system is simple, because no technology is involved. In addition, pre-heating of the incoming air is not necessary. Since the glass wool has a glass fiber cover, the ceilings can be cleaned without damaging the glass wool. A ceiling can be supplied with partially closed sections to improves the air circulation in the department. There are a few big advantages that have to be taken into account. The ceiling is simple to assemble and is possible to have large free spans of the profile plates. Another advantage is a reduction on building costs because the roof only has to be insulated against the heat in the summer. The ceilings are available in fire rating Bs1d0. When opting for aluminium or wood wool cement boards, it is even possible to get the ceilings in fire rating A.

AVAILABLE IN FIRE RATING BS1D0

ABSOLUTELY CORROSION-FREE

POLYESTER, PVC, ALUMINIUM

WOOD WOOL CEMENT BOARD

**EASY TO CLEAN** 

MINIMAL CONDENSATION

VERY LIGHT CEILING (4,5 KG/M<sup>2</sup>)

POSSIBLE WITH CLOSED SECTIONS

'Soft-Air' ventilation ceilings are installed across the production rooms entire area at a height of 2.5 to 3.0 meters. The plastic ceilings consists of polyester profiled plates with 3 mm wide grooves. The total open area of these grooves represents approximately 4% of the total surface. Glass wool with a thickness of 8 or 10 cm is placed on top of these profiled plates. The layer of glass wool is covered by a thin glass membrane at its underside that protects the glass wool during cleaning. The 'Soft-Air' glass wool - specifically developed for these ventilation ceilings - is treated with a silicone-based product designed to maintain the elasticity and dirt resistance of the glass wool for a long period of time.

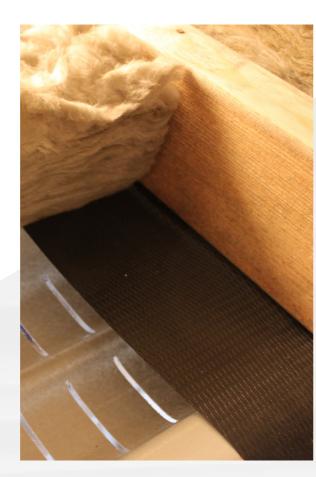
# **FUNCTIONS OF 'SOFT-AIR' GLASS WOOL**

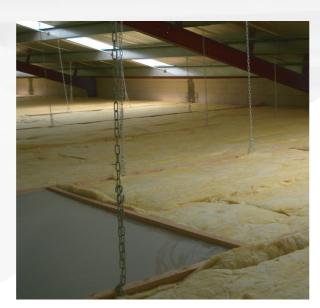
# The thick layer of 'Soft-Air' glass wool has the following functions:

- The incoming air is decelerated, filtered and distributed throughout the entire ceiling.
- In the event of lower outside temperatures, the air in the ventilation ceiling is heated to 3 to 5 degrees celsius below the room temperature. This precludes draughts and cold air fall.
- In addition to 80 mm, the glass wool is now available in a thickness of 100 mm as well. This increases resistance and heats the air to an even greater extent in winter.
- Due to the fact that the air is absorbed throughout the entire ceiling, no heat is lost through the roof, which leads to a saving in heating costs.
- The glass membrane protects the glass wool during cleaning and prevents it from sagging. The thin glass membrane has little resistance and prevents small particles of glass wool from falling into the stable.
- Due to its treatment with a silicone-based product the glass wool retains its elasticity and is protected against moisture.

# COMBINATION WITH TRANSLUCENT PLATES

Having enough daylight in farms is becoming increasingly important. The 'Soft-Air' ceiling can be outfitted with translucent polycarbonate plates that allow daylight to enter via the roof. The 16 mm multi-chamber polycarbonate plates used for this purpose have a high insulation value. Because only 2 to 5% of the floor surface needs to be translucent, these plates do not disrupt the ventilation pattern.





# **COMBINATION WITH FRESH NOSE PIPES**

To supply extra fresh air near the sows' heads during the warm summer months, it is possible to supply the 'Soft-Air' ventilation ceiling with PVC pipes. These pipes are mounted above the sows' head up to a height of approximately 135 cm above the ground level. These pipes are provided with a plastic cover that makes it easy to close them. During colder periods, the air is only supplied by the 'Soft-Air' ventilation ceiling.



# IMPROVED CLIMATE WITH THE 'VENTU-FLOW' SYSTEM So - 100 cm closed ceiling So - 100 cm closed ceiling - Both sides concrete plywood 18 mm closed ceiling - Air gap 14 mm Twinpipes



# **VENTU-FLOW SYSTEM**

The 'Ventu-flow' system prevents disrupting air movements from one half of the room to the other half. This reduces potential temperature variations in a room. In addition, the natural airflow in a room is stimulated. As a result there is less ventilation needed in the winter period, while the fresh air is better used in the summer. Furthermore, the pig farmer enjoys a better working climate with more fresh air due to the fact that the system is located above the inspection corridor.

# **TECHNICAL SPECIFICATIONS**

# **FIREPROOF CEILINGS**

Wood wool cement board

# **PVC SOFT-AIR**

# **ALUMINUM SOFT-AIR WOOD WOOL CEMENT BOARD SOFT-AIR**

# **POLYESTER SOFT-AIR**

# **Profiled plates**

# Fiberglass reinforced polyester Light gray ca. RAL 7035 Variable to define, 1,0 tot 10,0 m 100 cm

# ca. 1,2 mm 240 cm

# Available colour:

Material:

# Weight material: Total weight: Plate length: Effective width:

Plate thickness: Maximum span:

Fire rating: Perforation:

# White

**Profiled plates** 

PVC

1-10 meter

103,5 cm

ca. 1 mm

120 cm

Blank/Gray ca. 2 kg/m2 ca. 1,85 kg/m2 ca. 5,75 kg / m2 ca. 5,5 kg / m2 1-10 meter 100 cm ca. 0.5 mm 120 cm A1 - DIN 4102 B, s1, d0 (EN13501-1)

3 mm slots, ca 3,2% open

# Silicones

Glued to the bottom

10 mm.

120 cm. 80 / 100 mm.

# **Profiled plates**

Aluminium

Wood shavings Light brown / white 6,4 kg/m2 ca. 9,5 kg/m2 200 cm

60 cm 25 mm

120 cm

B, s1, d0 -> option in As1d0

# Glass wool

Material:

Available colour:

**Effective width:** 

Plate thickness:

Maximum span:

Plate length:

Treatment of materials: Thin glass membrane: Available colour: Specific mass: Roll length: Roll width:

> Thickness: Perforation:

# Suspension

Beams: Galvanized chains: Fixation:

'Ventu-Flow' system

Wall construction: Height below the ceiling: Height above the ceiling: Width of air inlet: Total width:

Maximum air inlet: Air resistance after installation: Weight complete ceiling: with suspension construction: Fire rating:

Silicones Glued to the bottom Green-yellow ca. 17,5 kg/m3 10 meter 120 cm 80 / 100 mm 3 mm slots, ca 4% open

50 x 100 mm

Galvanized, 5 x 45 mm

SS round head screws 5 x 30 mm torx

# 18 mm shuttered plywood

35 - 45 cm 5 - 15 cm 14 mm 50 mm

ca. 100 m3/hour/m2 ca. 10 Pa

ca. 4,5 kg/m2

Standard

Extra type FR: B2-DIN 4102-1

D

# Glass wool

Treatment of materials: Thin glass membrane: Available colour: Specific mass: Roll length: Roll width: Thickness: Maximum air inlet: Air resistance after installation:

Glued to the bottom

Silicones

Ø 6 mm, ca 2,4% open

yellow ca. 17,5 kg/m3 10 mm. 120 cm. 80 / 100 mm. ca. 100 m3/hour/m2

ca. 10 Pa

yellow

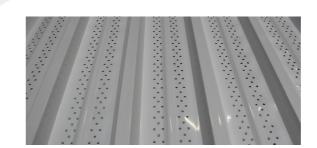
ca. 17,5 kg/m3

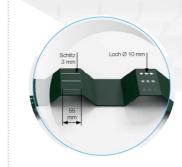
ca. 100 m3/hour/m2

ca. 10 Pa

# ca. 100 m3/hour/m2

ca. 10 Pa











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