

# STEICO air injected insulation **STEICO***timberfloc* | **STEICO***zell* | **STEICO***floc*

Delivery in practical bags or as bales without individual packaging

**NEW!**

**STEICO***timberfloc* – combination of wood fibres and cellulose



## The bio-based STEICO air-injected insulation for new build and refurbishment



### Areas of application

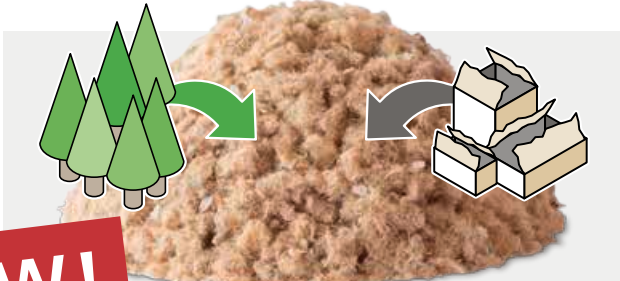
For all closed cavities in roofs, walls and ceilings

- Wood fibre and cellulose insulation materials of own production
- For use on site and in prefabrication
- Joint-free, settlement-proof, cut-free
- Easy storage and transport
- Delivery highly compressed in bags and bales
- Energy-efficient and economical
- Fast machine processing



# STEICO *timberfloc*

Air injected insulation from wood fibres and cellulose



**NEW!**

## Taking insulation one step further

STEICO *timberfloc* is the first air injected insulation on the market that perfectly combines the different advantages of the two bio-based air injected insulations wood fibre AND cellulose from cardboard boxes:

The addition of cellulose, with its excellent flow properties, improves the flow behaviour compared to pure wood fibre air injected insulation. This is why the most common air injection machines can be used for STEICO *timberfloc* – even somewhat less powerful ones, as are still often used.

Due to the three-dimensional interlocking of the wood fibres, STEICO *timberfloc* can be processed with a 10-25% lower raw density compared to pure cellulose air injected insulation.

STEICO *timberfloc* has extremely good thermal insulation properties in both winter and summer. The long-fibre structure guarantees permanent resistance to settlement, even with large insulation thicknesses.

### Delivery in handy bags

- Delivery in PE bags of 15 kg
- 21 bags per pallet = 315 kg / pallet
- Pallet dimensions = approx. 0.80 \* 1.20 \* 2.60 m (L \* W \* H)

Further delivery forms on request

### Note

Store in a dry place. Do not remove the transport packaging until the pallet is standing on a firm, level and dry surface. Observe processing guidelines.

### Technical data STEICO *timberfloc*

|   |  |
|---|--|
| Approval for loose wood fibres and cellulose flakes as thermal insulation           |  |
| European technical assessment (ETA)   | 23/0465  |
| Fire class (RTF) according to EN 13501-1  | E  |
| Declared thermal conductivity $\lambda_D$ [W/(m*K)]                                 | 0.039  |
| Recommended density $\rho$ [kg/m <sup>3</sup> ]                                     |  |
| • Open blown: attic floor   | approx. 32   |
| • Closed cavities: roof, ceiling, wall  | approx. 42-60  |
| Water vapour diffusion resistance value $\mu$                                       | 1/3  |
| Specific heat capacity $c$ [J/(kg * K)]   | 2.100  |
| Flow resistance $r$ [kPa * s/m <sup>2</sup> ] acc. EN 29053 30 kg/m <sup>3</sup> w  | ( $\geq 45 \text{ kg/m}^3$ ) = 8;<br>( $< 45 \text{ kg/m}^3 - \geq 35 \text{ kg/m}^3$ ) = 5;<br>( $< 35 \text{ kg/m}^3 - \geq 32 \text{ kg/m}^3$ ) = 4 |
| Ingredients   | wood fibres, cellulose flakes, flame retardant   |
| Waste code (EAK/AVV)  | 170604/170904  |
| <b>Bound carbon / CO<sub>2</sub> storage [kg CO<sub>2</sub> equ./m<sup>3</sup>]</b> | <b>approx. 51</b>  |

### Minimum raw density table STEICO *timberfloc*

| Insulation thickness                      |    |          |           |         |
|---|----|----------|-----------|---------|
|   |    | 0° - 20° | 20° - 60° | * > 60° |
| Insulation thickness [kg/m <sup>3</sup> ] |    |          |           |         |
| ≤ 16 cm                                   |    |          |           |         |
| ≤ 22 cm                                   |    |          |           |         |
| ≤ 28 cm                                   | 32 | 42       | 42        | 42      |
| ≤ 34 cm                                   |    |          |           |         |
| ≤ 40 cm                                   |    |          |           |         |

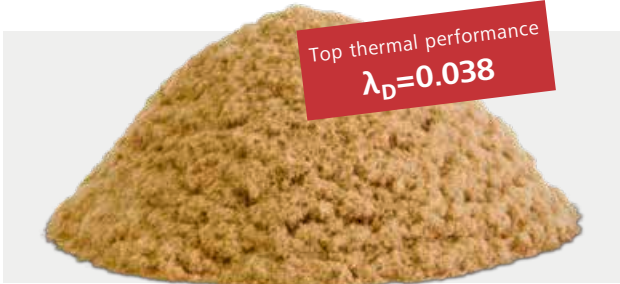
The requirement for settlement resistance is the quantity blown in according to the minimum raw density table and the even distribution in the cavity. No material quantity needs to be added for prefabricated components and subsequent transport. A check of the air-injected fields on the building site is essential in order to fulfil the high quality requirements.

The following applies when calculating the thermal resistance of components when openly blown on: Installation thickness = nominal thickness + 7%.



# STEICOzell

Wood fibre air injected insulation



STEICOzell is made exclusively from fresh softwood that is certified in accordance with the strict rules of the PEFC. A low proportion of ammonium salts (< 5 %) guarantees permanent material resistance and reliable fire protection.

STEICOzell has extremely good thermal insulation properties in both winter and summer. The long-fibre structure guarantees permanent resistance to settlement, even with large insulation thicknesses.

### Delivery in handy bags

- Delivery in PE bags of 15 kg
- 21 bags per pallet = 315 kg / pallet
- Pallet dimensions = approx. 0.80 \* 1.20 \* 2.60 m (L \* W \* H)

### Delivery in bales without individual wrapping / big bales (industrial packaging)

- Bales of 15 / 20 kg, stacked open on a pallet, packed weatherproof with stretch wrapping
- 18 bales per pallet = 270 kg / pallet (15 kg bales) / 360 kg / pallet (20 kg bales)
- Pallet dimensions = approx. 0.80 \* 1.20 \* 2.30 m (L \* W \* H)

Further delivery forms on request

### Note

Store in a dry place. Do not remove the transport packaging until the pallet is standing on a firm, level and dry surface. Observe processing guidelines.



### Technical data STEICOzell

|   |   |
|---|---|
| Approval for loose wood fibres as thermal insulation                                |   |
| European technical assessment (ETA)   | 12 / 0011   |
| Fire class (RTF) according to EN 13501-1  | E   |
| Declared thermal conductivity $\lambda_D$ [W/(m*K)]                                 | 0.038   |
| Recommended density $\rho$ [kg/m <sup>3</sup> ]                                     |   |
| • Open blown: attic floor   | approx. 32  |
| • Closed cavities: roof, ceiling, wall  | approx. 35 - 45   |
| Water vapour diffusion resistance value $\mu$                                       | 1/3   |
| Specific heat capacity $c$ [J/(kg * K)]   | 2.100   |
| Flow resistance $r$ [kPa*s/m <sup>2</sup> ] acc. EN 29053                           | 30 kg/m <sup>3</sup> > 5                                |
| Ingredients   | wood fibres, flame retardant ammonium sulphate          |
| Waste code (EAK/AVV)  | 170201, disposal like wood and engineered wood products |
| <b>Bound carbon / CO<sub>2</sub> storage [kg CO<sub>2</sub> equ./m<sup>3</sup>]</b> | <b>approx. 63</b>                                       |

### Minimum raw density table STEICOzell

| Insulation thickness | [kg/m <sup>3</sup> ] |           |       |    |
|----------------------|----------------------|-----------|-------|----|
|                      |                      |           |       |    |
|                      | 0° - 20°             | 20° - 60° | > 60° |    |
| ≤ 16 cm              | 32                   | 35        | 35    | 35 |
| ≤ 22 cm              |                      |           |       |    |
| ≤ 28 cm              |                      |           |       |    |
| ≤ 34 cm              |                      |           |       |    |
| ≤ 40 cm              |                      |           |       |    |

Tip for pre-measuring the amount of material: 40 kg/m<sup>3</sup> or 2.5 - 3.0 bags/m<sup>3</sup>.

The requirement for settlement resistance is the quantity blown in according to the minimum raw density table and the even distribution in the cavity. For prefabricated components and subsequent transport, 7 kg/m<sup>3</sup> of material must be added. A check of the air-injected fields on the building site is essential in order to fulfil the high quality requirements.

The following applies when calculating the thermal resistance of components when openly blown on: Installation thickness = nominal thickness + 20%.



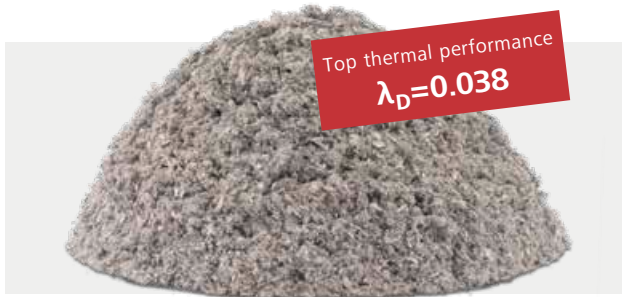
allows Moisture Control Design compliant with

- ✓ EN 15026
- ✓ ASHRAE 160
- ✓ DIN 4108



# STEICO *floc*

Cellulose air injected insulation



Only sorted daily newspaper is used for STEICO *floc*. This is defibred in a modern vortex mill. A low proportion of inorganic mineral salts ensures the material's lasting durability and fire protection.

STEICO *floc* has extremely good thermal insulation properties in both winter and summer. The special flake quality guarantees permanent resistance to settlement, even with large insulation thicknesses.

## Delivery in handy bags

- Delivery in PE bags of 15 kg
- 21 bags per pallet = 315 kg / pallet
- Pallet dimensions =  
approx. 0.80 \* 1.20 \* 2.60 m (L \* W \* H)

## Delivery in bales without individual wrapping / big bales (industrial packaging)

- Bales of 15 / 20 kg, stacked open on a pallet, packed weatherproof with stretch wrapping
- 18 bales per pallet = 270 kg / pallet (15 kg bales) /  
360 kg / pallet (20 kg bales)
- Pallet dimensions =  
approx. 0.80 \* 1.20 \* 2.30 m (L \* W \* H)

Further delivery forms on request

## Note

Store in a dry place. Do not remove the transport packaging until the pallet is standing on a firm, level and dry surface. Observe processing guidelines.

## Characteristic values STEICO *floc* and STEICO *floc* NB (boron free)

|   |   |
|---|---|
| Approval for loose cellulose flakes as thermal insulation                           |   |
| European technical assessment (ETA)   | 16/0141   |
| Fire class (RTF) according to EN 13501-1  | E   |
| Declared thermal conductivity $\lambda_D$ [W/(m*K)]                                 | 0.038   |
| Recommended density $\rho$ [kg/m <sup>3</sup> ]                                     |   |
| • Open blown: attic floor   | approx. 27-39   |
| • Closed cavities: roof, ceiling, wall  | approx. 40-60   |
| Water vapour diffusion resistance value $\mu$                                       | 1/3   |
| Specific heat capacity $c$ [J/(kg*K)]   | 2.100   |
| Flow resistance $r$ [kPa*s/m <sup>2</sup> ] acc. EN 29053                           | 30 kg/m <sup>3</sup> = 6.2<br>45 kg/m <sup>3</sup> = 18.4 |
| Ingredients   | Sorted newsprint, inorganic mineral salts                 |
| Waste code (EAK/AVV)  | 170604/170904   |
| <b>Bound carbon / CO<sub>2</sub> storage [kg CO<sub>2</sub> equ./m<sup>3</sup>]</b> | <b>approx. 61</b>   |

## Minimum densities STEICO *floc*

| Insulation thickness |                      |    |    |    |
|----------------------|----------------------|----|----|----|
|                      | [kg/m <sup>3</sup> ] |    |    |    |
| ≤ 16 cm              | 30                   | 38 | 43 | 47 |
| ≤ 22 cm              | 32                   | 40 | 45 | 50 |
| ≤ 28 cm              | 34                   | 43 | 47 | 52 |
| ≤ 34 cm              | 34                   | 44 | 49 | 55 |
| ≤ 40 cm              | 34                   | 48 | 51 | 57 |

The requirement for settlement resistance is the quantity blown in according to the minimum raw density table and the even distribution in the cavity. For prefabricated components and subsequent transport, 5 kg/m<sup>3</sup> of material must be added. A check of the air-injected fields on the building site is essential in order to fulfil the high quality requirements.

The following applies when calculating the thermal resistance of components when openly blown on: Installation thickness = nominal thickness + 10%.



FORUM  
HOLZBAU  
PREMIUM  
PARTNER

Quality  
Management  
ISO 9001:2015

Environmental  
Management  
ISO 14001:2015

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