

# fade<sup>®</sup>

System datasheet  
PLUS+

Issued 2018/1

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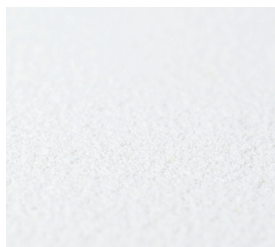
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## 1. fade® Acoustic Plaster System

The fade® Acoustic Plaster System provides customers with a seamless acoustic ceiling with great sound absorption and the choice between a textured or smooth and white finish in any colour thinkable.

## 2. Acoustic plaster finish

fade® Acoustic - PLUS+



## 3. Application

Ceilings & walls

## 4. Materials

### - Acoustic Plaster:

fade® Acoustic - PLUS+

Ultra smooth, dirt-resistant, anti-static, microporous, can be sanded

Light reflectance: up to 83%

Standard colour: off white - Nearest NCS colour S 0300-N

Grain size: 0,7mm

### - Acoustic boards:

Mineral wool must be produced using a minimum of 40% recycled material and re-used waste products from manufacture.

The wool must meet the requirements of Note Q of the European Regulation 1272/2008, which ensures that the fibres are biosoluble.

Approved boards: John Mansville Whisperstone® Wallboard, Ecophon Plasterabsorber & Isover Fasadboard

Board thickness available: 20/25/40mm

### - Special Washers & screws:

SFS Intec MW-40-R - Ø40 mm stainless-steel washers or fade® Special Washer. All screws used must be corrosion resistant.

### - Adhesive:

DanAtac Vinyl 10L

### - Self-adhesive fiberglass scrim tape

Standard glasfiber scrim tape

## 5. Properties

- Ultra smooth finishes available
- Can be coloured in an extensive colour palette (NCS/RAL)
- Excellent sound absorption
- Minimal installation height
- Monolithic, joint less & seamless
- Non-flammable (A2s1d0) as per ISO EN 13501, 2007
- No growth of mold
- No required maintenance & easy to repair
- Short installation time

## 6. Suitable substrates

- Regular gypsum wallboard
- MF metal drywall grid system 400 mm c/c or similar
- Concrete
- Previously painted substrates
- Timber

## 7. Conditions for installation & storage

### - Conditions for installation

Please ensure that the project site is properly heated (if the installation takes place in cold climates) and that the project site can be dehumidified if necessary (if the installation takes place in a hot and humid climate). It is not recommended that installation is carried out in temperatures below 1 °C.

#### Note:

In cold or humid conditions the acoustic plaster will have a longer drying time and in some cases the joints can crack due to the plaster drying from the "inside" and out.

Please ensure that the acoustic boards are being protected from direct sunlight prior to the application of the acoustic plaster.

#### Note:

Once the acoustic boards are installed please apply the acoustic plaster immediately to prevent any problems.

Please ensure that the building is watertight to prevent any water leaks destroying the acoustic plaster system.

Please ensure that the building or the construction between floors are airtight to prevent dust deposits from airflow if the acoustic board are installed direct-to-grid.

### - Storage

#### Acoustic plaster

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperatur: Frost free

Shelf life: 12 months

#### Acoustic boards

Always store away from direct sunlight to avoid resin bleed through.

Storage temperature: Frost free

Shelf life: 12 months

## 8. Installation & aftercare

This is a general guide on how the system is installed.

NB! To prevent dust deposits on the surface due to airflow we recommend testing the air tightness of the building before installing the system direct-to-grid.

### A. Standard installation

#### 1. Suitable substrate

Done by others

#### 2. Acoustic board

The acoustic boards are installed to the suitable substrate with tight joints.

Installation can be done mechanically with screws and special washers 400mm c/c or with an approved adhesive.

#### 3. Self-adhesive fiberglass scrim tape

Scrim tape is applied to the joints with acoustic plaster. Any irregularities and indents from washers filled and leveled with acoustic plaster.

\*This step may have to be repeated once the plaster has dried out and until one has achieved a completely levelled surface with no indents or irregularities.

The applied acoustic plaster is sanded lightly when dry to remove any irregularities

#### 4. Spraying

The acoustic plaster is spray applied in two layers and should build 3-4mm in total and left troweled nicely.

#### 5. Finishing

For a completely smooth surface sand the entire surface until satisfied.

### Maintenance, cleaning, repairing and refreshing:

#### Maintenance

The system does not require any regular maintenance. The extent to which the individual surface requires cleaning or refreshing will vary as this depends on the effects of dirt, smoke etc. The acoustic plaster is not statically charged and therefore does not attract dust or dirt from the air.

#### Cleaning

The surface can be cleaned using a dry, soft brush or pressurized air. Any application of water or cleaning fluid will lead to logging of the porous structure and a resultant reduction of the sound absorbing effect.

#### Repairing

Stains or any other damages that have penetrated the surface and cannot be removed by the previous actions can be repaired by applying a thin layer of acoustic plaster onto the imbedded stain or damaged area.

Apply the acoustic plaster gently and do not "force" the acoustic plaster onto the stain or damaged area.

If the surface has been sanded originally do sand the repaired area lightly when the applied acoustic plaster is dry.

If the surfaced is troweled nicely originally, do trowel the acoustic plaster on the imbedded stain or damaged area to make it look as the existing surface.

#### Recoating and refreshing the surface

In harsh environments or after several years the surface might need a refreshment.

The surface can be given a light sanding or can be recoated to refresh the surface. The surface will then appear as new. To maintain great absorption levels, we recommend giving the surface a light sanding before recoating. There is no limitation to how many times the surface can be recoated.

## B. Installation with reinforced mesh (installation on walls)

### 1. Suitable substrate

Done by others

### 2. Acoustic board

The acoustic boards are installed to the suitable substrate with tight joints.

Installation can be done mechanically with screws and special washers 400mm c/c or with an approved adhesive.

### 3. Spraying and application of the reinforced mesh

The 1. layer of acoustic plaster is spray applied and should build 2 mm in total (approx. 2 litre/m<sup>2</sup>). While wet, the reinforced mesh is troweled into the plaster.

When using the fibre glass mesh one do not need to apply scrim tape on the joints or fill indents and irregularities.

Make sure that the fibre glass mesh is troweled completely and nicely into the 1. layer of acoustic plaster and that the surface appear completely level and homogeneous.

### 4. Spraying

Once the 1. layer of plaster is completely dry the 2. layer of acoustic plaster is spray applied and left troweled nicely.

Once dry the acoustic plaster should not build more than 3-4mm.

### 5. Finishing

For a completely smooth surface sand the entire surface until satisfied.

## Maintenance, cleaning, repairing and refreshing:

### Maintenance

The system does not require any regular maintenance. The extent to which the individual surface requires cleaning or refreshing will vary as this depends on the effects of dirt, smoke etc. The acoustic plaster is not statically charged and therefore does not attract dust or dirt from the air.

### Cleaning

The surface can be cleaned using a dry, soft brush or pressurized air. Any application of water or cleaning fluid will lead to clogging of the porous structure and a resultant reduction of the sound absorbing effect.

### Repairing

Stains or any other damages that have penetrated the surface and cannot be removed by the previous actions can be repaired by applying a thin layer of acoustic plaster onto the imbedded stain or damaged area.

Apply the acoustic plaster gently and do not "force" the acoustic plaster onto the stain or damaged area.

If the surface has been sanded originally do sand the repaired area lightly when the applied acoustic plaster is dry.

If the surfaced is troweled nicely originally, do trowel the acoustic plaster on the imbedded stain or damaged area to make it look as the existing surface.

### Recoating and refreshing the surface

In harsh environments or after several years the surface might need a refreshment.

The surface can be given a light sanding or can be recoated to refresh the surface. The surface will then appear as new.

To maintain great absorption levels, we recommend giving the surface a light sanding before recoating.

There is no limitation to how many times the surface can be re coated.

## C. Installation of bespoke RAL/NCS colours

### 1. Suitable substrate

Done by others

### 2. Acoustic board

The acoustic boards are installed to the suitable substrate with tight joints.

Installation can be done mechanically with screws and special washers 400mm c/c or with an approved adhesive.

### 3. Mixing the acoustic plaster with the fade® Acoustic COLOUR dye supplied by fade® Acoustic Ceilings

Mix the acoustic plaster with the coloured dye provided by your local fade® distributor or fade® Acoustic Ceilings. Mix according to guidelines set out by fade® Acoustic Ceilings.

### 4. Self-adhesive fiberglass scrim tape

Scrim tape is applied to the joints with acoustic plaster. Any irregularities and indents from washers filled and leveled with acoustic plaster.

\*This step may have to be repeated once the plaster has dried out and until one has achieved a completely levelled surface with no indents or irregularities.

The applied acoustic plaster is sanded lightly when dry to remove any irregularities

### 5. Spraying

The coloured acoustic plaster is spray applied in two layers and should build 3-4mm in total and left troweled nicely.

### 6. Finishing

For the best result we recommend that the surface is left troweled or with a fine texture sprayed with a 2mm nozzle.

## Maintenance, cleaning, repairing and refreshing:

### Maintenance

The system does not require any regular maintenance. The extent to which the individual surface requires cleaning or refreshing will vary as this depends on the effects of dirt, smoke etc. The acoustic plaster is not statically charged and therefore does not attract dust or dirt from the air.

### Cleaning

The surface can be cleaned using a dry, soft brush or pressurized air. Any application of water or cleaning fluid will lead to clogging of the porous structure and a resultant reduction of the sound absorbing effect.

### Repairing

Stains or any other damages that have penetrated the surface and cannot be removed by the previous actions can be repaired by applying a thin layer of acoustic plaster onto the imbedded stain or damaged area.

Apply the acoustic plaster gently and do not "force" the acoustic plaster onto the stain or damaged area.

If the surface has been sanded originally do sand the repaired area lightly when the applied acoustic plaster is dry.

If the surfaced is troweled nicely originally, do trowel the acoustic plaster on the imbedded stain or damaged area to make it look as the existing surface.

### Recoating and refreshing the surface

In harsh environments or after several years the colored surface might need a refreshment or one might want to change the colour..

Changing the colour can be done by recoating the surface with a different colour. If one changes the colour from e.g. Green to red one needs to sand away the green acoustic plaster and recoat with red. If the change in colour is not massive e.g. light grey to dark grey one can recoat without sanding away the underlying layer of coloured acoustic plaster.

To maintain great absorption levels, we recommend giving the surface a light sanding before recoating. There is no limitation to how many times the surface can be re coated.



## D. Installation in extreme humid conditions (wet areas e.g. swimming pools, spas and wellness areas, partially outside areas etc.)

General information:

The system has been tested and approved according to DS/EN ISO 6270-2, 2005 Paint and varnishes – Determination of resistance to humidity at the Danish Technological Institute.

We recommend using the Water & Stain repellent spray when installing the system in areas that are subject to humid conditions – e.g. swimming pools, spas and wellness areas, partially outside areas etc.

The Water & Stain repellent spray is a highly effective hydrophobic spray used with the fade® Acoustic Plaster System. The Water & Stain repellent spray does not form a film and provides breathable water and stain repellent. The Water & Stain repellent spray will not affect the acoustical absorption of the system.

### 1. Suitable substrate

Done by others

### 2. Acoustic board

The acoustic boards are installed to the suitable substrate with tight joints.

Installation can be done mechanically with screws and special washers 400mm c/c or with an approved adhesive.

### 3. Self-adhesive fiberglass scrim tape

Scrim tape is applied to the joints with acoustic plaster. Any irregularities and indents from washers filled and leveled with acoustic plaster.

\*This step may have to be repeated once the plaster has dried out and until one has achieved a completely levelled surface with no indents or irregularities.

The applied acoustic plaster is sanded lightly when dry to remove any irregularities

### 4. Spraying

The acoustic plaster is spray applied in two layers and should build 3-4mm in total and left troweled nicely.

### 5. Finishing

For a completely smooth surface sand the entire surface until satisfied.

### 6. Water & stain repellent spray

The Water & Stain repellent spray must be applied immediately after the installation is completed.

Spray apply the Water & Stain repellent spray evenly (0,3-0,5 L/m<sup>2</sup>) on the surface.

## Maintenance, cleaning, repairing and refreshing:

### Maintenance

The system does not require any regular maintenance. The extent to which the individual surface requires cleaning or refreshing will vary as this depends on the effects of dirt, smoke etc. The acoustic plaster is not statically charged and therefore does not attract dust or dirt from the air.

### Cleaning

The Water & Stain repellent spray will make the surface very dirt resistant. The surface can be cleaned using a dry, soft brush or pressurized air.

### Repairing

Stains or any other damages that have penetrated the surface and cannot be removed by the previous actions can be repaired by applying a thin layer of acoustic plaster onto the imbedded stain or damaged area.

Apply the acoustic plaster gently and do not "force" the acoustic plaster onto the stain or damaged area.

If the surface has been sanded originally do sand the repaired area lightly when the applied acoustic plaster is dry.

If the surfaced is troweled nicely originally, do trowel the acoustic plaster on the imbedded stain or damaged area to make it look as the existing surface and apply the Water & Stain repellent spray to the repaired area only.

### Recoating and refreshing the surface

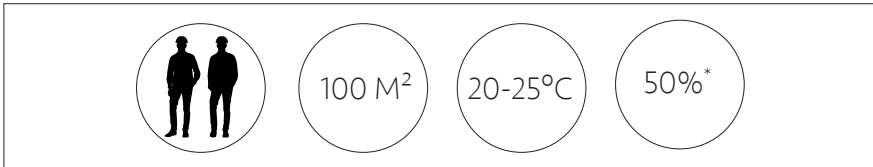
In harsh environments or after several years the surface might need a refreshment.

The surface can be given a light sanding or can be recoated to refresh the surface. The surface will then appear as new. To maintain great absorption levels, we recommend giving the surface a light sanding before recoating. There is no limitation to how many times the surface can be re coated.

Once recoated or given a light sanding apply the Water & Stain repellent spray as per above.

## 9. Installation time

The installation time in this example presuppose a work group of 2 installers and a ceiling size of at least 100 m<sup>2</sup>. The drying time of the fade® Acoustic Plaster depends on the room temperature and the room humidity. Please allow the acoustic plaster to dry thoroughly before proceeding to the next steps.



Days	1	2	3	4	5	6
Acoustic board						
Meshtape on joints						
1. layer of acoustic plaster						
Drying time* <sup>1</sup>						
2. layer of acoustic plaster						
Drying time* <sup>1</sup>						
Sanding* <sup>2</sup>						

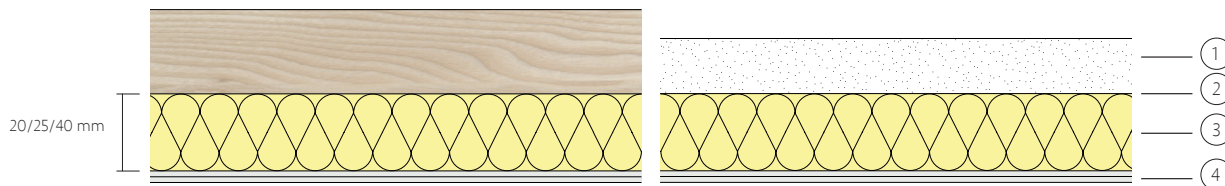
\* Relative room humidity

\*<sup>1</sup> Depends on the room temperature and humidity

\*<sup>2</sup> Sanding is optional and is recommended for an ultra smooth finish.

# 10. System Construction

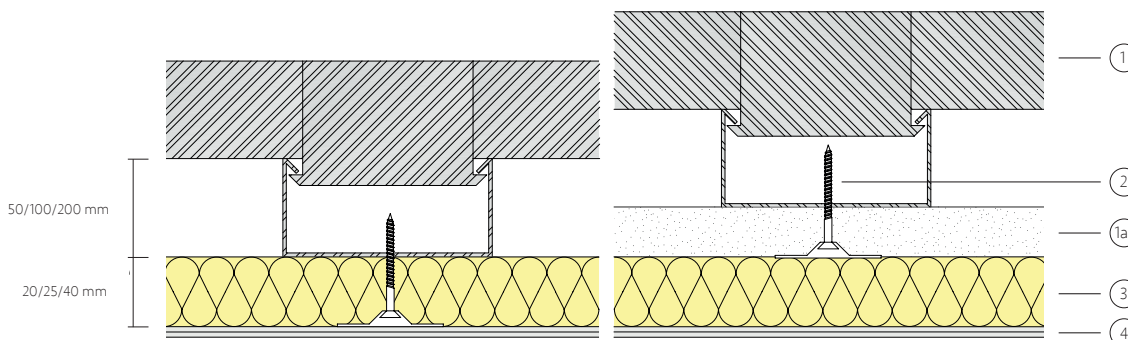
Type A - "Direct installation"



- ① Suitable substrate
- ② Adhesive or screw + washer
- ③ Acoustic board (20/25/40 mm)
- ④ fade® Acoustic Plaster

Type E - "Direct-to-grid"

Type E - "Suspended installation" - no airgap



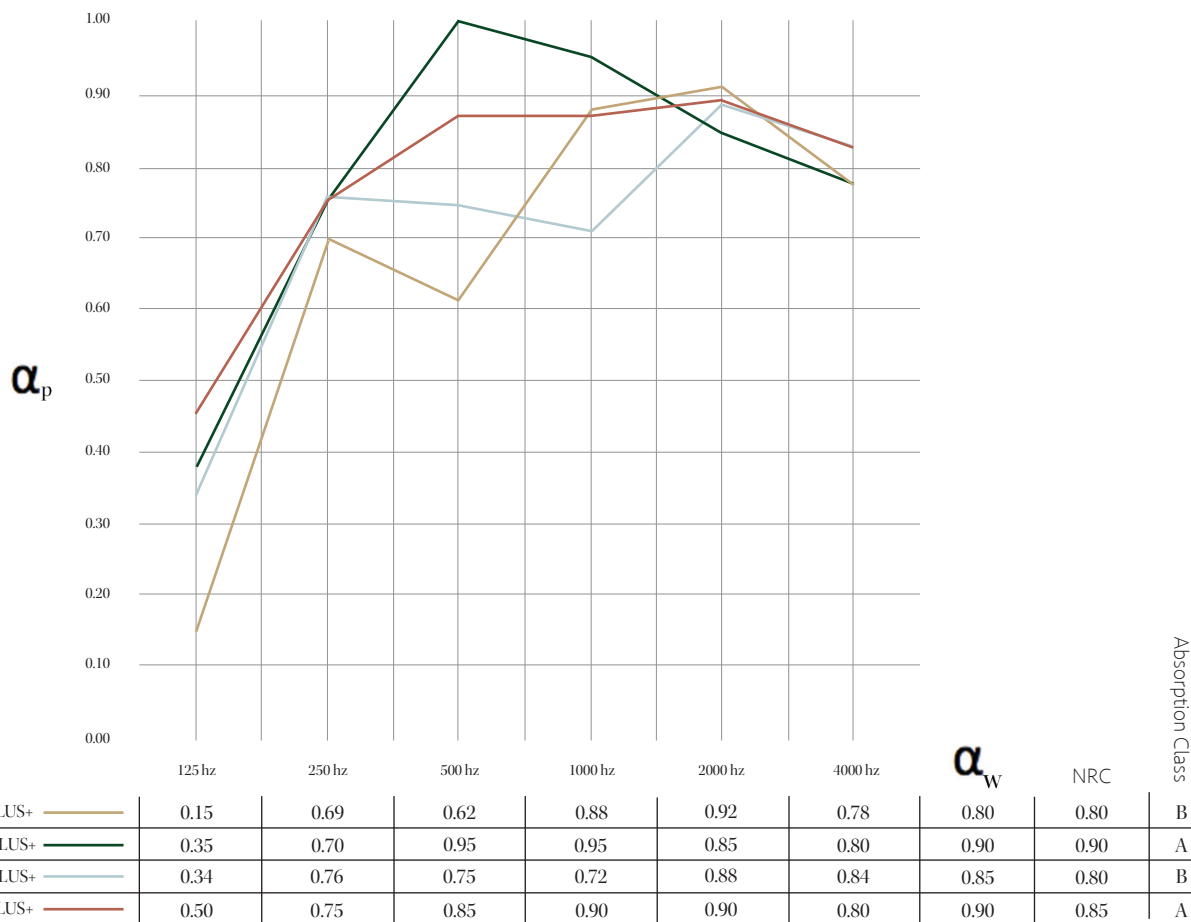
- ① MF metal drywall gridsystem 400 mm c/c or similar
- ② Screw + washer
- ③ Acoustic board (20/25/40 mm)
- ④ fade® Acoustic Plaster
- ①a 16mm regular gypsum wallboard

System measurements			
Finish	Optional		
Acoustic board thickness (mm)	20	25	40
Acoustic Plaster thickness (mm)	3	3	3
Total thickness	23	28	43

We kindly remind you that this is a general guide on how the system is set up and specific technical advise is recommended before proceeding with any transaction. Full technical information available from your local fade® approved installer or from fade® Acoustic Ceilings EUROPE. Please note the fade® acoustic plaster system can only be installed by fade® approved installers.

Please note that when installation the system direct-to-grid dust deposits can occur due to airflow.

# 11. Acoustic measurements



Acoustic tests:  
Sound Research  
Laboratories

Acoustic tests:  
SP Technical Research  
Institute of Sweden



## 12. Technical data

### - Acoustic measurements

25mm / direct t (Type A) / PLUS+: aw 0,8 - NRC 0,8 as per BS EN ISO 354:2003  
 25mm / suspended (E-200) / PLUS+: aw 0,85 - NRC 0,8 as per BS EN ISO 354:2003  
 40mm / direct t (Type A) / PLUS+: aw 0,9 - NRC 0,9 as per BS EN ISO 354:2003  
 40mm / suspended (E-200) / PLUS+: aw 0,9 - NRC 0,85 as per BS EN ISO 354:2003

### - Fire testing as per ISO EN 13501, 2007

Class A: A2s1d0

### - Resistance to growth of mold as per ASTM D3273-16

At at relative humidity below 70% there is no growth.

### - VOC & formaldehyde

As per the Protocol for Chemical and Sensory Testing of Building Materials as defined by the Finnish Emission Classification of Building Materials:  
 VOC: 0,014 mg/m<sup>2</sup>h / Formaldehyde: 0,0044 mg/m<sup>2</sup>h

### - Determination of static electrical properties for ceiling panels

No static electrical charges could be measured in any test setup.

### - Colour and surface reflectance as per ISO 18314-1, 2015

Nearest NCS colour: S 0300-N  
 Light reflectance: 83%

### - Exposure to UV-light as per ASTM G 154-16 & ISO 18314-1, 2015

No visible changes after 1000 hours

### - Determination of resistance to humidity as per DS/EN ISO 6270-2, 2005

#### Test 1:

Test conditions: 40°C/95%RH.  
 Exposure time: 168 hours  
*Result: No visible changes*

#### Test 2:

Test conditions: Constant-humidity condensation atmosphere (CH), 40±3°C and approx. 100% condensation on test specimens.  
 Exposure time: 48 hours  
*Result: No visible changes*

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