

# Theuma Group

Installation, maintenance & overcoating  
instructions and assessment criteria



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## Installation, maintenance & overcoating instructions and assessment criteria

### 1. introduction

Delivery of Theuma interior doors and frames includes the installation, maintenance and overcoating instructions. The latest version of these instructions can at all times be consulted on the website [www.theuma.com](http://www.theuma.com) under the section "Advice", or delivered to you on request.

### 2. Reception/storage on the building site

Upon receipt of doors, frames and included materials, the number, type and condition of the delivered goods must be checked. If any damage or defects are detected upon delivery, a note must be made on the delivery note and CMR (consignment note), stating your findings and the identification of the damaged goods. Edge damage that is visible in the stack must always be reported immediately, while damage (e.g. surface damage) that is not visible in the stack must be reported in writing within 8 working days. For visual assessment of defects, please refer to SKH publication 08-04 of 2010.

The doors, frames and included materials must, in the packaging as delivered, be placed in a dry room, protected against damage and weather influences. The door must be stored horizontally and adequately and evenly supported. This is to prevent possible deformation. The top door of each stack must be completely covered.

### 3. Transport

If the doors and frames are transported further, all necessary measures must be taken to prevent physical damage, as well as moisture damage (leakage and condensation in the truck).

### 4. Fitting conditions at the building site

Wooden interior doors may only be placed in a dry building.

A building is considered dry when the hygrothermal conditions prevailing there and observed for seven consecutive days remain within the following limits.

Air temperature: 15 to 25°C. Air humidity: 40% to 70% RH

### 5. Installation instructions

#### 5.1. Basic doors

##### 5.1.1. Openings

Walls, floors and openings must be ready for assembly, in conformity with the overview of opening sizes submitted by the frame supplier.

##### 5.1.2. Fitting glass openings

As a general rule, internal doors are not suitable for subsequent fitting of glass openings. Depending on the type of door, deviation from this rule may be possible after consultation.

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### 5.1.3. Custom doors

When creating custom doors, the pivot joints to be maintained must be taken into account; see section 5.1.6. Treated surfaces must be immediately provided with adequate protection. For finishing treated surfaces, see section 5.1.9.

Non-fire resistant doors can be shortened at the bottom up to a maximum of 10 mm. Flush-mounted doors to be finished can be planed to fit and bevelled in width, up to a maximum of 3 mm on each side. Depending on the type of door, deviation from this rule may be possible after consultation.

### 5.1.4. Slots for hanging mechanism and locks and (safety) fittings

Slots for the hanging mechanism and locks and (safety) fittings, including patent/handle/cylinder holes, must be made according to the assembly drawings of the relevant product. The tolerances specified herein must be observed.

Treated surfaces must be immediately provided with adequate protection.

### 5.1.5. Mounting of hanging mechanism and locks

The hanging mechanism and locks must, in accordance with the manufacturer's installation instructions, be mounted in the slots for this purpose with the fasteners prescribed herein.

### 5.1.6. Hanging

When hanging the doors, the pivot joints to be maintained, which are specified by the frame manufacturer, must be taken into account.

If no data from the frame manufacturer is available, we recommend the following pivot joints. Due to, for example, the hanging mechanism or locks or ventilation requirements, larger pivot joints may possibly be necessary.

	Flush-mounted doors	Rebated doors
Hanging and closing side	2.5 mm	5 mm
Top of door	3 mm	5 mm
Bottom of door	6 mm	

In the case of fire-resistant, soundproof and/or burglar-resistant doors, specific pivot joints can be prescribed.

### 5.1.7. Glazing (glass/grilles/safety glass) Use of safety glass is recommended.

If the glass is not factory-fitted, at least the instructions below must be followed: Hang the door according to section 5.1.6 and then take it out of the frame again.

- Lay the door horizontally.
- Apply sealing tape to the glazing beads (if applicable).

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- Fit the glazing beads properly on one side (by nailing or screwing).
- Apply sealing tape or a glazing kit in the rebate (if applicable).
- Put the glass in place. Distribute the glass evenly in the rebate.
- Apply the remaining glazing beads so that the glass is clamped between the glazing beads.
- The glass must be adequately sealed. No water must come between the rebate and the glass. Water can cause damage to the door.
- Grilles must be fitted in accordance with the manufacturer's installation instructions.

### 5.1.8. Repairs

Minor damage can be repaired with a suitable filler.

A filler must have the following characteristics:

- Contains no aggressive substances
- Easily workable with simple tools;
- Adheres well to the surrounding wood, both on the long sides and at the ends;
- Spreads evenly, without pulling the material;
- Does not shrink during hardening;
- Dries quickly and thoroughly;
- Can be sanded well after curing;
- Has a good finish.

The application instructions of the supplier of the filler must be followed.

Repaired surfaces must be immediately provided with a primer. For finishing repaired surfaces, see section 5.1.9.

### 5.1.9. Topcoats

If you have received doors with a primer or with a treated surface, please refer to our overcoating advice. See section 7

### 5.1.10. Restoring lacquer system

If the lacquer system needs to be restored, you should contact us for proper restoration advice.

### 5.1.11. Applying (safety) fittings

For application of slots for (safety) fittings, see section 5.1.4. The (safety) fittings must, in accordance with the installation instructions, be mounted in the slots for this purpose with the fasteners prescribed herein.

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### 5.2. Additional conditions for fire-resistant doors

#### 5.2.1. Custom fire-resistant doors

As a general rule, fire-resistant doors are not suitable for custom-made work.

Depending on the type of door, deviation from this rule may be possible after consultation. There must be strict supervision to ensure that the fire-resistant material is not removed or damaged.

#### 5.2.2. Slots for hanging mechanism and locks and fittings

Fire-resistant materials for hanging mechanisms and hinges are supplied with the fire-resistant door at an extra cost. Slots for the hanging mechanism and locks and (safety) fittings, including patent/handle/cylinder holes, must be made according to the assembly drawings of the relevant product. In doing so, the thickness of the required fire-resistant materials should be taken into account. Treated surfaces must be immediately provided with adequate protection.

#### 5.2.3. Mounting of hanging mechanism and locks and fittings

The hanging mechanism and locks and fittings, including the required fire-resistant materials, must, in accordance with the installation instructions, be mounted in the slots for this purpose with the fasteners prescribed in the reports of the relevant door.

#### 5.2.4. Mounting of fire-resistant glazing

By default, fire-resistant glazing must be installed by the manufacturer.

If applicable, fire-resistant glazing can be installed by the customer as long as the applicable installation rules for that specific glazing are complied with.

#### 5.2.5. Hanging

In the case of fire doors, the specific pivot joints are prescribed in the reports of the relevant door. These must be maintained.

#### 5.2.6. Other

All other operations that take place after the door has left the factory, such as the fitting of drop seals, kick plates, penetrations or slots, may adversely affect the fire resistance. For this reason, always ask the manufacturer for advice.

### 5.3. Additional conditions for fire-resistant doors

#### 5.3.1. Custom doors

As a general rule, burglar-resistant doors are not suitable for custom-made work. Depending on the type of door, deviation from this rule may be possible after consultation.

#### 5.3.2. Slots for hanging mechanism and locks and fittings

Slots for the hanging mechanism and locks and (safety) fittings listed in the test report, including patent/handle/cylinder holes, must be made according to the instructions laid down in the test report. The

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tolerances specified herein must be observed. Treated surfaces must be immediately provided with adequate protection.

### *5.3.3. Mounting of hanging mechanism and locks and fittings*

The hanging mechanism and locks listed in the test report must be mounted in the slots for this purpose with the fasteners prescribed in this report.

### *5.3.4. Hanging*

In the case of burglar-resistant doors, the specific pivot joints are prescribed in the test report of the relevant door. These must be maintained.

### *5.3.5. Glazing (glass/grilles/safety glass)*

If glass openings are found in the doors, the glass and the glass fixing must be fitted in the door as described in the test report for the relevant door.

## 5.4. Additional conditions for soundproof doors

### *5.4.1. Custom doors*

As a general rule, soundproof doors are not suitable for custom-made work. Depending on the type of door, deviation from this rule may be possible after consultation.

### *5.4.2. Hanging*

In the case of soundproof doors, the pivot joints must be kept as small as possible. Care should be taken to ensure proper connection of the door leaf to the frame.

### *5.4.3. Glazing (glass/grilles/safety glass)*

If glass openings are found in the doors, the glass and the glass fixing must be fitted in the door as described in the test report for the relevant door.

### *5.4.4. Other*

All other operations that take place after the door has left the factory, such as the fitting of penetrations or slots, may adversely affect the soundproofing. For this reason, always ask the manufacturer for advice.

## 6. Maintenance advice

### 6.1. Cleaning

Doors are best cleaned with a mild detergent. To this end, the door should be wiped down with a moist cloth (repeat, if necessary) and then rubbed with a clean, dry cloth.

Pencil, pen and felt pen marks should be removed with an eraser.

Use of concentrated detergents and solvents (turpentine or white spirit) may damage the top layer. If this is necessary due to heavy soiling, contact with the top layer should be as brief as possible, after which the surface should always be cleaned with a damp cloth, followed by rubbing with a clean, dry cloth.



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Please note: Abrasive cleaning agents may definitely not be used. Always refer to the instructions of the relative manufacturer when using cleaning agents.

After washing the floor under the door, the floor must be immediately dried to avoid water absorption through the door. Damp rooms with interior doors (e.g. bathrooms) must be ventilated regularly.

### 6.2. Maintenance

Check the doors for damage on a regular basis. Have damaged doors replaced or repaired by a professional.

For optimal functioning, the hanging mechanism and locks must be periodically greased with a suitable lubricant.

### 7. Overcoating advice

#### 7.1. Theuma interior doors for painting

THEUMA interior doors for painting are provided with an industrially applied water-based lacquer system for interior use, which can be finished with the most common lacquer systems for indoor use.

We recommend first testing the lacquer system to be used on this surface. Always first test glossy lacquer systems to see whether the result meets the set requirements. Cell grille doors are less suitable for finishing with glossy lacquer systems, whereas wide-span doors give better results.

General implementing provisions for paintwork on interior doors

- The painting work must be carried out in a suitable room.
- The door surface to be painted must be lightly sanded; do not sand through the primer coating.
- Use of glossy lacquer is only possible with careful preparation of the surface. This preparation consists of carefully applying filling primer, flat-sanding, applying lacquer and additional sanding between the different layers of lacquer.
- The surface to be painted must be clean, and dust and grease free. This also applies before application of each layer. Remove surface contamination with appropriate means. Cleaning agents must not leave residues. Pre-treat the surface to be painted with a modified primer.
- The instructions of the lacquer system used (including the application of a modified primer) must be strictly observed.

#### 7.2. Theuma wooden frames (brut, grounded or covered with foil) to paint

Theuma wooden frames for painting come without primer (brut), grounded or covered with a foil that is suitable for painting. This surface can be finished with the most common lacquer systems for indoor use.

We recommend first testing the lacquer system to be used on this surface. Please note that the side surface is made of a different material than the main surface of the door. Always test glossy lacquer systems first on both surfaces to see whether the result meets the set requirements.

General implementing provisions for paintwork on Theuma wooden frames

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- The painting work must be carried out in a suitable room.
- The door surface to be painted must be lightly and evenly sanded. Do not sand through the primer if present.
- The surface to be painted must be clean, and dust and grease free. This also applies before application of each layer. Remove surface contamination with appropriate means. Cleaning agents must not leave residues. Pre-treat the surface to be painted with a suitable primer.
- The instructions of the lacquer system used (including the application of a modified primer) must be strictly observed.

### 7.3. Theuma EBC lacquer interior doors

Theuma EBC lacquer interior doors are equipped with an industrially applied lacquer system for interior use with exceptional hardness. The lacquer system is based on acrylate that is cured by the action of electron radiation. The lacquer system can be overlacquered with the most common paint systems for indoor use.

We recommend first testing the lacquer system to be used on this surface. We point out that the edge finish of these doors is in a different material than the surface. The edge finish must therefore be tested separately with the paint system.

General implementing provisions for paintwork on EBC lacquer interior doors

- The painting work must be carried out in a suitable room.
- The door surface to be painted must be lightly and evenly sanded. Note that EBC is a lacquer layer with exceptional hardness (Do not sand the layer of lacquer.)
- The surface to be painted must be clean, and dust and grease free. This also applies before application of each layer. Remove surface contamination with appropriate means. Cleaning agents must not leave residues. Pre-treat the surface to be painted with a modified primer.
- The instructions of the lacquer system used (including the application of a modified primer) must be strictly observed.

Theuma does not accept any responsibility for problems overlacquering EBC lacquer doors.

### 7.4. Theuma steel frames with an epoxy powder coating

Theuma steel frames are provided with an epoxy powder coating. For overcoating with this excellent protective layer, we advise you to proceed as follows (This paint advice applies to both primer and top coat.)

We recommend first testing the lacquer system to be used on this surface. General implementing provisions for paintwork on Theuma steel frames

- The painting work must be carried out in a suitable room.

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- Degrease the frame to be painted (e.g. with Universol).
- Rinse with clean water.
- The frame to be painted must be sanded with sandpaper 320 grit. Do not sand through the layer of paint.
- Remove dust from the frame to be painted. The surface to be painted must be clean, and dust and grease free. This also applies prior to application of each layer. Remove surface contamination with appropriate means. Cleaning agents must not leave residues.
- Overcoating with a water-based paint.
- The instructions of the paint system used (including the application of a modified primer) must be strictly observed.

### 8. Assessment criteria

#### 8.1. Surface assessment: visual assessment

Complaints about visual defects are assessed in accordance with SKH publication 08-04 of March 2010. The spacing between assessments must be observed according to Figure 1.

The assessment must be carried out in the room either by daylight or under the normal lighting conditions. Floodlight, bright sunlight or direct rays of artificial light are not suitable for an objective assessment.

#### 8.2. Colour and texture deviations

Wood is a natural product, so colour and structure uniformity cannot be guaranteed.

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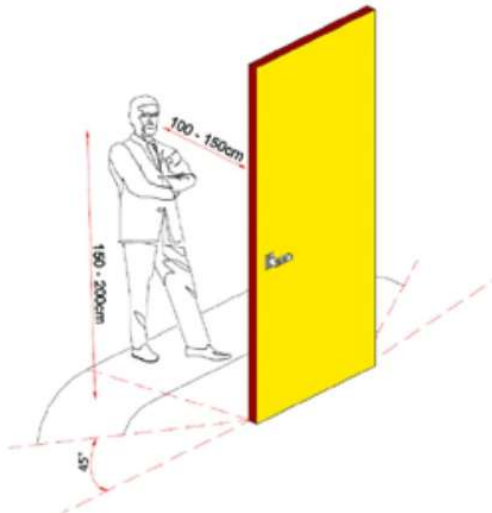


Figure 1: Spacing between assessments due to visual defects.

When colour differences are determined for lacquered surfaces within one and the same product group (wooden door, wooden frame, metal frame) with the same solid colour, the following criteria are used to assess colour differences (measurements are made with a colorimeter according to the CIELab method):

- Delta E <2
- Delta L-, a- and b- <2

### 8.3. Damage

Visible damage upon receipt (without discarding transport packaging): preferably notify in writing immediately upon receipt, but no later than 48 hours after delivery.

Invisible damage upon receipt:

- Stock doors for customers: report in writing within 4 months after invoicing.
- Project doors for customers: report in writing within 8 working days after delivery.

Damage will be assessed on the basis of: photos, on-the-spot findings or after returns.