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Lid van de EOTA
Member of EOTA

European Technical Approval ETA-03/0007

Handelsnaam Trade name	YTONG/Hebel separatiepanelen type G4/600 en G5/800	
Houder van de goedkeuring Holder of approval	Xella Nederland bv Mildijk 141 4214 DR Vuren Postbus 23 NL-4200 AA Gorinchem The Netherlands	
Algemeen type en gebruik van het bouwproduct	Kits voor scheidingswanden voor toepassing als niet-dragende binnenwand met verdiepinghoge panelen van geautoclaveerd cellenbeton (dikte 70, 75 en 100 mm)	
Generic type and use of construction product	Internal partition kit with large-sized panels of autoclaved aerated concrete (AAC) (thickness 70, 75 and 100 mm) for use as non-loadbearing walls	
Geldig Validity	van from	2013-03-31
	tot to	2018-03-31
Fabrieken Manufacturing plants	Xella Cellenbeton Nederland bv Productie-unit Meppel: Industrieweg 14 NL-7944 HS Meppel	Xella Deutschland Productie-unit Laußig: Landstraße 51 D-04838 Laußig
	Xella Cellenbeton Nederland bv Productie-unit Vuren: Mildijk 141 NL-4114 DR Vuren	

Deze Europese Technische Goedkeuring vervangt ETA-03/0007 met geldigheidsduur van 2008-03-31 tot 2013-03-31.

This European Technical Approval replaces ETA-03/0007 with validity from 2008-03-31 to 2013-03-31.

Deze Europese Technische Goedkeuring bevat:

This European Technical Approval contains:

15 bladzijden, inclusief 1 bijlage, die deel uitmaakt van het document

15 pages including 1 annex which forms an integral part of the document



Europese Organisatie voor Technische Goedkeuringen
European Organisation for Technical Approvals
Organisation pour l'Agrément Technique Européen
Europäische Organisation für Technische Zulassungen

I LEGAL BASES AND GENERAL CONDITIONS

- 1 This European Technical Approval is issued by IKOB-BKB in accordance with
 - Council Directive 89/106/EEC¹ of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products, amended by the Council Directive 93/68/EEC² and Regulation (EC) no. 1892/2003 of the European Parliament and of the Council³.
 - Bouwbesluit 2012⁴ and the Ministeriële regeling Bouwbesluit 2012⁵
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC⁶
 - Guideline for European Technical Approval for « Internal Partitions Kits for use as Non-loadbearing Walls » ETAG 003, edition December 1998
- 2 The IKOB-BKB is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products with the European Technical Approval and for their fitness for their intended use remains with the holder of the European Technical Approval.
- 3 This European technical approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European technical approval
- 4 This European Technical Approval may be withdrawn by IKOB-BKB pursuant to Article 5.1 of the Council Directive 89/106/EEC.
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- 6 The European technical approval is issued by the approval body in the English language. This version corresponds fully to the version used by EOTA for circulation. Translations in other languages have to be designated as such.

¹ Official Journal of the European Communities N° L40, 11 Feb 1989, p 12

² Official Journal of the European Communities N° L220, 30 Aug 1993, p. 1

³ Official Journal of the European Union N° L284, 31.Oct 2003, p. 1

⁴ Staatsblad 2011: 416, 676; Staatsblad 2012: 441; Staatsblad 2013: 75

⁵ Staatscourant 2011, nr. 23914; Staatscourant 2012, nr. 13245; Staatscourant 2013, nr. 5457

⁶ Official Journal of the European Communities N° L17, 20 Jan 1994, p 34.

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of products and intended use

1.1 Definition of products

The internal partition kit is designed and installed in accordance with the ETA-holder's design and installation instructions.

The kit comprises panels made of autoclaved aerated concrete (YTONG/Hebel type G 4/600 and YTONG/Hebel type G 5/800) and adhesive mortar (YTONG Thin layer mortar fix P) which are factory-produced as part of the kit by the ETA-holder himself and additional components which are produced by other manufactures delivering to the specification of the ETA-holder, who is responsible for the kit.

The additional components are:

- repair mortar (AAC fill)
- ancillary materials, provided by the ETA-holder (see also figure of Annex 1):
 - o Resilient Anchors (galvanised steel)
 - o Wooden wedges
 - o Angle bracket (galvanized steel)
 - o Rubber block
 - o Chipboard screw
 - o Joint filler (assembly foam – regular polyurethane foam)
 - o Joint filler (assembly foam – fire resistant polyurethane foam)

1.2 Intended use

The YTONG/Hebel internal partition kit is a kit for buildings, to be assembled on site.

The result is an immovable partition intended to be used as a non-loadbearing wall with fire separating capabilities (see 2.2.1.2) and/or acoustic insulation (see 2.2.4.1) and/or thermal insulation properties (see 2.2.5).

The partition is assessed against the requirements of use category IVb to ETAG 003, being zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and misuse. In case of failure risk includes the fall at a lower level, conform type b in figure 1 (see clause 2.2.3.1

Conditions for the intended use are:

- structures capable of giving adequate support and adequate possibilities for fixing;
- an average air temperature in the range from 5 °C to 35 °C with a minimum of 0 °C and a maximum of 50 °C;
- an average daily humidity range 20 % RH to 75 % RH. Maximum air relative humidity only exceeding 85 % RH for short periods of time.

The wall can be provided on site with different type of surface treatments such as plastering or rendering. The internal partition kit is also fitted to be used as substrate for ceramic tiling.

The thickness of the wall without rendering is 70 mm, 75 mm or 100 mm, depending upon the applied thickness of the type panel which is chosen to be used. The maximum height of the wall is 3000 mm

An example of the wall is given in annex 1.

Assumed working life

The provisions made in this European Technical Approval are based on an assumed intended working life of the non load bearing wall achieved with the internal partition kit of at least 25 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2. Characteristics of products and methods of verification

2.1 Characteristics of the components.

Detailed information on the chemical composition and other identifying characteristics of the components have been deposited with the approval body IKOB-BKB.

The components of the kit are specified by the ETA-holder as follow:

2.1.1 Panels

The YTONG/Hebel panels type G4/600 and type G5/800 are prefabricated and made of autoclaved aerated concrete (AAC). The panels are provided with a reinforcement (for non structural purposes) for handling during transport. For this purpose each panel is containing reinforcing bars (steel bars \varnothing 4 mm with ribbed profile) in the longitudinal direction. In the cross section of the panel the bars are positioned halfway the thickness at distances as shown in the figure of Annex 1.

For identification of the panels product characteristics are given in table 1.

Table 1 – Product characteristics

Product Characteristics	Test method	YTONG/Hebel Panel ⁷		Unit
		Type G4/600	Type G5/800	
Length	EN 991	2200 – 3000	2200 – 3000	mm
Width	EN 991	498, 598 and 748	498, 598 and 748	mm
Thickness	EN 991	70, 75 and 100	70, 75 and 100	mm
Density (ρ)	EN 678	575 \pm 50	750 \pm 50	kg/m ³
Compressive strength(f_c)	EN 679	\geq 4,0	\geq 5,0	N/mm ²
Moisture content	EN 1353	\leq 200	\leq 200	kg/m ³
Modulus of elasticity (E_c)	EN 1352	2000	3000	N/mm ²

Tolerances	
Length	\pm 3 mm
Width	\pm 2 mm
Thickness	\pm 2 mm
Deviation of flatness	\pm 2 mm
Deviation of parallelism (along sides)	\pm 2 mm

2.1.2 Adhesive mortar

Trade name YTONGThin layer mortar fix P⁸

Use: adhesive applied as (joint)filler for the joints between the panels

Type: cement based dry mortar requiring addition of water.

⁷ Additionally used type indications:

Country Panel type G4/600:

GB	YTONG/Hebel AAC 4 / 600
D	YTONG/Hebel PPN4/0,60
F	YTONG/Hebel G4/600
I	YTONG/Hebel P4/600
CZ	YTONG/Hebel P4/600
PL	YTONG/Hebel PP 4/600
DK	YTONG/Hebel P4/600
NL	YTONG/Hebel G4/600

Country Panel type G5/800:

GB	YTONG/Hebel AAC 5 / 800
D	YTONG/Hebel PPN5/0,8
F	YTONG/Hebel G5/800
I	YTONG/Hebel P5/800
CZ	YTONG/Hebel P5/800
PL	YTONG/Hebel PP 5/800
DK	YTONG/Hebel P5/800
NL	YTONG/Hebel G5/800

Abbreviations: AAC = aerated autoclaved concrete P = Porenbeton; G = Gasbeton; PP = Porenbeton-Planbauteil oder Precision-Element; PP(N) = Porenbeton-Planbauteile (Nichttragend)

⁸ Additionally used type indications

Country

GB	YTONG Thin layer mortar fix P
D	YTONG Dünnbettmörtel fix P
F	YTONG Mortier-colle fix P
I	YTONG Malta-collante fix P
CZ	YTONG Tenkovrstvá zdicí malta fix P
PL	YTONG Cienkowarstwowa zaprawa fix P
DK	YTONG Væglement-klæber fix P
NL	YTONG Panelenlijm fix P

Compressive strength $\geq 10 \text{ N/mm}^2$ (EN 1015-11)

Flexural strength $\geq 2,5 \text{ N/mm}^2$ (EN 1015-11)

2.1.3 Repair mortar

Trade name AAC -fill

Use: filler for grooves such as required for the incorporation of conduits (such as for electricity purposes)

Type: cement based dry mortar requiring addition of water.

2.1.4 Ancillary materials

- *Resilient Anchors (galvanized steel), made of strip 22 mm x 0,7 mm, dimensions 90- 6-16-90 mm*
- *Wooden wedges*
- *Angle bracket (galvanized steel);made of sheet 57 mm x 2,00 mm, dimensions 60 mm x 60 mm.*
- *Rubber block (granulated rubber); dimensions 60 mm x 40 mm x 15 mm.*
- *Chipboard screw (galvanized steel); diameter 5,0 mm, length 70 mm.*

See figure 2 of annex 1

- *Joint filler (assembly foam – regular polyurethane foam)*
- *Joint filler (assembly foam – fire resistant polyurethane foam)*

2.2 Characteristics of the Internal Partition

The assessment of the fitness for use of the internal partition according the Essential Requirements was carried out in compliance with the ETA Guideline № 003.

2.2.1 ER 2 - Safety in case of fire

2.2.1.1 Reaction to fire

The reaction to fire of the YTONG/Hebel panels type G4/600 and G5/800 is classified as **class A1**.
The reaction to fire of the adhesive mortar YTONG thin layer mortar fix P is classified as **class A1**.

(Autoclaved aerated concrete ACC and mortar with inorganic binder are mentioned in the Annex of EC decision 94/611/EG modified by EC decision 2000/605/EG as material allowing to be classified in class A1 without testing)

2.2.1.2 Resistance to fire

The resistance to fire of the internal partition made with the YTONG/Hebel panels type G4/600 or type G5/800, in function of the thickness of the panel and the material used as joint filler between partition and adjacent masonry, is classified according table 2 .

Table 2 - Classification of resistance to fire

Classification of resistance to fire			
Partition type	Thickness [mm]	Joint filler	
		Assembly foam Regular polyurethane foam	Assembly foam Fire resistant polyurethane foam
G4/600	70	No performance determined	E 120 / EI 60 ¹⁾
	75	No performance determined	E 120 / EI 60 ²⁾
	100	No performance determined	E 180 / EI 120
G5/800	70	No performance determined	E 120 / EI 60 ¹⁾³⁾
	75	No performance determined	E 120 / EI 60 ²⁾
	100	No performance determined	E 180 / EI 120 ³⁾

¹⁾ Exchanging the assembly foam by mineral wool as joint filler the classification of the resistance to fire of the 70 mm panel will upgrade from E 120 / EI 60 to E 120 / EI 120

²⁾ The classification is based upon test performed using type G4/600 thickness 70 mm

³⁾ The classification is based upon test performed using type G4/600

2.2.2 ER 3 - Hygiene, health and the environment

2.2.2.1 Release of dangerous substances

Influence on air quality: no dangerous materials

In addition to the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

2.2.2.2 Water vapour permeability

The water vapour diffusion coefficient (μ -value) of the YTONG/Hebel panels type G4/600 and G5/800 according to table A.10 of EN 1745 is **5/10**.

(The value 5 is intended to be used for diffusion into the panel, the value 10 is intended to be used for diffusion out of the panel.)

The designer shall consider the relevant needs for ventilation, heating and insulation to minimise condensation in service.

2.2.2.3 Water permeability

Water permeability: No performance determined (not relevant).

2.2.3 ER 4 - Safety in use

2.2.3.1 Resistance to structural damage from dynamic loads

Internal partitions made with the YTONG/Hebel panels type G4/600 and type G5/800, thickness 70 mm, thickness 75 mm and thickness 100 mm, both have a satisfactory resistance to **Use category IVb**.

For description of the use category IVb and used test method see Table 3.

Table 3 – Use category IVb

Classification resistance to structural damage from dynamic loads		
Use category	Description	Test method used
The system has been assessed for Use category IVb	Use category IVb is described as «Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and misuse. In case of failure, risk includes the fall to a floor at lower level, cf type b in figure 1»	The system is tested with: <ul style="list-style-type: none"> • a soft body energy level (up to 1.5 m above pedestrian level) of 500 Nm • a hard body energy level of 10 Nm.

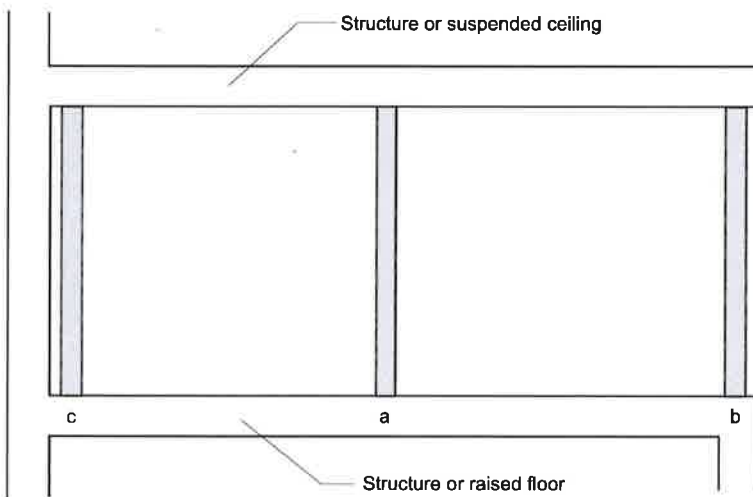


Figure 1 – Use category IVb conform type b

2.2.3.2 Resistance to structural damage from eccentric loads

Internal partitions made with the YTONG/Hebel panels type G4/600 and type G5/800, thickness 70 mm, thickness 75 mm and thickness 100 mm, have a satisfactory resistance to **Loading use category b**.

For description of loading use category b and used test method see Table 4.

Table 4 – Loading use category b

Resistance to structural damage from eccentric loads		
Loading use category	Description	Test method used
The system has been assessed for: Loading use category b	Loading use category b is described as «Very heavy object such as (sanitary or heating equipment) boilers, large bookshelves»	The system is tested with: an eccentric vertical 24 h load of 4000 N.

2.2.3.3 Safety against personal injury by contact

When properly installed, the internal partition does not contain sharp or abrasive components liable to cause personal injury.

2.2.4 ER 5 - Protection against noise

2.2.4.1 Airborne sound insulation

Table 5 provides an indication of airborne sound insulation values for internal partition made with YTONG/Hebel panels type G4/600 and type G5/800

Table 5 – Airborne sound insulation

Partition type	Thickness	Measured mass per unit area [kg/m ²]	Laboratory sound insulation (ISO 717-1) 100 Hz - 3150 Hz $R_w (C; C_{tr})$ [dB]
	[mm]		
G4/600	70	52,5	34(-2;-3) *
	75	56,2	
	100	75,0	
G5/800	70	57,3	
	75	61,4	
G5/800	100	81,8	

*) this value is generated by testing the most unfavourable one of the three types mentioned, being the partition type G4/600 with thickness 70 mm.

2.2.4.2 Sound absorption

No performance determined, whereas the sound absorption depends on the surface treatment to be applied.

2.2.5 ER 6 – Energy economy and heat retention

2.2.5.1 Thermal resistance

Table 6 provides an indication of thermal resistance of the internal partitions made with YTONG/Hebel Panels type G4/600 and type G5/800.

Table 6 – Thermal resistance R_T calculated according EN-ISO 6946

Partition type	Thickness [mm]	R_T [(m ² ·K)/W]
G4/600	70	0,71
	75	0,75
	100	0,91
G5/800	70	0,62
	75	0,64
	100	0,77

Note:

The design thermal conductivity λ_U used for the determination of the thermal resistance R_T is calculated from the basic λ -value, which is determined from the $\lambda_{10,dry}$ -values ($P = 50\%$) given in table A10 of EN 1745, which relate $\lambda_{10,dry}$ to density.

The calculated value of the moisture conversion factor F_m , using the formula $F_m = e^{fu(u_2-u_1)}$ with $f_u = 4$ (kg/kg) and $u_2-u_1 = 0,02$ (kg/kg), is 1,083.

2.2.5.2 Thermal inertia

Table 7 provides information on relevant properties for the calculation of the contribution of the partition to the thermal inertia of the works.

Table 7 – Properties for the calculation of the thermal inertia

Partition type	Thickness [mm]	Density of the dry material (ρ) [kg/m ³]	Heat capacity c [kJ/(kg.K)]	Thermal transmittance U [W/(m ² .K)]
G4/600	70	580	1,0	1,40
	75	580	1,0	1,34
	100	580	1,0	1,10
G5/800	70	725	1,0	1,62
	75	725	1,0	1,55
	100	725	1,0	1,29

2.2.6 Related aspects of serviceability

2.2.6.1 Resistance to functional failure from impact loads

Internal partitions made with the YTONG/Hebel panels type G4/600 and type G5/800, thickness 70 mm, thickness 75 mm and thickness 100 mm, have a satisfactory resistance to **Use category IV**

For description use category IV, used test method and measured maximum deflection see Table 8.

Table 8 – Use category IV

Resistance to functional failure from impact loads			
Use category	Description	Test method used	Deflection measured
The system has been assessed for: Use category IV	Use category IV (IVa and IVb) is described as «Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and misuse. In case of failure, risk includes the fall to a floor at lower level, cf type b in figure 1»	The resistance to functional failure from soft body impact load of the system is tested with energy level of 120 Nm (3x).	For a height of 3000 mm of the test specimen (thickness 70 mm) the maximum deflection during impact measured is 9,7 mm.

2.2.6.2 Resistance to point loads

Lightweight fixtures can be made directly to the partition.

2.2.6.3 Rigidity of partitions to be used as a substrate for ceramic tiling

Internal partitions made with the YTONG/Hebel panels type G4/600 and type G5/800, thickness 70 mm, thickness 75 mm and thickness 100 mm, have all a satisfactory rigidity in order to be used as substrate for ceramic tiling.

The testing of the rigidity has been performed by soft body impact load with energy level 120 Nm (3x) and 240 Nm (1x) requirements are satisfied tested.

2.2.6.4 Protection against deterioration caused by hygrothermal conditions

No performance determined as the movement caused by differential temperatures on the partition within the range indicated under the intended use would be too small and insufficient to cause any noticeable bowing or deformation of the surface.

2.2.6.5 Protection against deterioration caused by corrosion

The partition has a sufficient protection against corrosion since all ancillary metal materials are made of galvanised steel (hot-dip zinc Z275 coating) and the in house use is a non aggressive environment.

2.2.6.6 Protection against deterioration caused by cleaning agents

The partition has a sufficient protection against cleaning agents

2.2.6.7 Protection against deterioration caused by biological agents

The use of the partition does not encourage infestation as there is no food in materials used.

3 Evaluation of Conformity and CE marking

3.1 Attestation of Conformity

The attestation of conformity applied to this product specified by the European Commission in Mandate Construct 97/243 REV.1, Annex 3 (and specified in EC decision 98/213/EG, revised by EC decision 2001/596/EG) is System 3.

Whereas for partitions with «Reaction to fire class A1 (without testing)» the specified system is System 4 and for partitions with «Safety in use category IV» the specified system is System 3, the system to be applied to this product is System 3.

System 3 is described in Council Directive (89/106/EEC) Annex III, 2 (ii), second possibility and is detailed as follows:

1. initial type testing of the product by an approved body.
2. factory production control

3.2 Responsibilities

3.2.1 Tasks of the manufacturer

3.2.1.1 Factory production control

The manufacturer continues to operate a factory production control system. Quality control checks are made on incoming materials, and at regular stages throughout the production sequence to ensure the quality and fit of the components.

The quality control on the components includes checks on:

Panels	Adhesive	Ancillary materials
Dimensions Compressive strength Density	Compressive strength Flexural strength Bond strength	Dimensions Thickness

The frequency of checks on incoming materials, controls and tests conducted during production, controls and tests of the final product is laid down in a control plan that is agreed between IKOB-BKB and the manufacturer and is being kept in file by IKOB-BKB.

3.2.1.2 Initial type testing of the product

For initial type testing the results of the tests performed as part of the assessment for this European Technical Approval shall be used unless there are mayor changes in the production line or plant. In such cases the necessary type testing has to be agreed between IKOB-BKB and the manufacturer.

3.3 CE marking and information

The CE marking shall be affixed on the packaging and accompanying commercial document. The CE marking shall be accompanied by the following information:

Name of the product YTONG/Hebel type G4/600 or G5/800
Identifying mark of the producer and plant.
Last two digits of the year in which the CE marking was affixed
Number of the ETA: ETA-03/0007

The documentation of the ETA-holder will provide the following information:

Class of reaction to fire	Class A1		
Class of resistance to fire	Thickness 70 mm	Thickness 75 mm	Thickness 100 mm
	E 120/EI 60	E 120/EI 60	E 180/EI 120
Use category	Use category IVb		

The ETA is issued for the kit with the chemical composition and other characteristics as deposited with the issuing Approval Body. Changes of materials, of composition or characteristics should be immediately notified to the Approval Body which will decide whether a new assessment will be necessary.

4 Assumptions under which the fitness of the product(s) for the intended use was favourably assessed

4.1 Manufacturing

Panels, adhesive and repair mortar shall be manufactured by Xella Cellenbeton Nederland bv respectively by Xella Deutschland or by subcontractors under the responsibility of Xella Cellenbeton Nederland bv respectively by Xella Deutschland.

4.2 Installation

Installation details and application details for the man on site are given by the manufacturer in the Manufactures Installation Guidance document which forms part of the documentary material for the ETA and which shall always accompany the kit delivered on site.

The essential parts of the installation details and application are mentioned hereafter.

4.2.1 General

The non-load bearing wall is made on site by installing the panels of the internal partition kit in vertical position. Structural vertical joints between the panels are made with the adhesive YTONG Thin layer mortar fix P. Expansion joints are made with joint filler assembly foam. Depending on the required resistance to fire an assembly foam of the type fire resistant polyurethane is to be used.

4.2.2 Installation of the panels

The panels are installed side by side in vertical position respecting that joints in between with a width of 2 ± 1 mm are made. The jointing is made by applying the adhesive YTONG Thin layer mortar fix P in a sufficient amount, that is brought up before along one side of the panel.

For the preparation of the adhesive the prescriptions that are mentioned on the packaging are to be followed.

The pot life of the adhesive YTONG Thin layer mortar fix P after mixing is 4 hours.

4.2.3 Design details

Design details are given in figure 3 of annex 1.

4.2.3.1 Floor connection

The panels are installed on the rough concrete floor. After being lifted up to the required height position with the help of a crowbar, and the eventual necessary adjustment of the front and the side in perpendicular position, the panels are fixed with wooden wedges at the bottom and the sides.

The required height position is reached as soon as a distance of circa 12 mm between panel and ceiling is achieved (see hereafter).

After a sufficient hardening of the adhesive (> 48 h) the wedges placed at the sides are removed and the space at the bottom is being filled with no-slump mortar.

4.2.3.2 Ceiling connection

Two blocks of granulated rubber 60 mm x 40 mm x 15 mm are fixed with adhesive or nails at the upside of each panel at a distance of 100 mm from both edges. The wedging of the panels is carried out until the thickness of the rubber blocks is decreased to circa 12 mm.

The remaining space between partition and ceiling is to be filled with the joint filler (assembly foam of the type regular or of the type fire resistant polyurethane foam.).

Each second panel and also the first and last panel of a of partition part is always mechanically to be fixed to the ceiling with a resilient anchor. The fixing of the anchor to the panel is made by two nails, for panels with thickness 70 mm or 75 mm nails (\varnothing 5,6 mm, length 125 mm) are to be used, for panels with thickness 100 mm nails (\varnothing 6,1 mm, length 125 mm) are to be used..

The fixing of the anchor to the ceiling has to be made with a mechanical fixing appropriate for the substrate.

4.2.3.3 Wall connection

Between partition and adjacent concrete wall a space of circa 15 mm is to be respected which is to be filled with the joint filler (assembly foam of the type regular or of the type fire resistant polyurethane foam.).

4.2.3.4 Corners

Corners and connections with other adjacent structures are carried out in a flexible way following the same procedure as described before for the wall connection.

For partition parts having a length smaller or equal to the width of the panel, the joint can also be made in a non flexible way using the adhesive YTONG Thin layer mortar fix P together with an additional mechanical fixing existing out of three nails. For panels with thickness 70 mm or 75 mm nails (\varnothing 5,6 mm, length 125 mm) are to be used. For panels with thickness 100 mm nails 160 mm x 6.1 mm are to be used. The positioning of the nails should be chosen at equal distances distributed over the length of the joint.

4.2.3.5 Doorframes

Preference should be given to the application of doorframes of the type with a height from floor to ceiling. Doorframes combined with a filling slab of AAC concrete in the space between frame and ceiling however can also be applied, provided that the width of the frame is not exceeding the length of 1.0 m.

For using a filling slab of AAC the following procedure is to be followed.

1. Angle brackets of galvanised steel (60 mm x 60 mm x 57 mm, thickness 2 mm) are mechanically fixed on both sides of the adjacent panels at the required height using two self drilling screws (\varnothing 5,0 mm, length 70 mm). The positioning of the brackets should be centred in respect to the thickness of the panel.
2. From a panel the filling slab with its required dimensions is made by sawing. The length of the filling slab should be circa 30 mm less than the distance of the space between the adjacent panels that is to be filled. The filling slab is then placed upon the angle brackets respecting a joint at both sides of circa 15 mm.
3. The filling slab is then mechanically fixed at the brackets using one self drilling screw (\varnothing 5,0 mm, length 70 mm) each bracket.
4. The remaining space between the slab and the adjacent panels is then to be filled with the joint filler (assembly foam of the type regular or of the type fire resistant polyurethane foam.).

4.2.3.6 Expansion joints

Expansion joints width a width of circa 15 mm are to be foreseen in ongoing partitions at distances about two times the height of the wall with a maximum of 5.0 m. The joint is to be filled with the joint filler (assembly foam of the type regular or of the type fire resistant polyurethane foam.).

4.2.4 Finishing

The repair of damaged panels and the filling up of grooves such as required for the incorporation of conduits (such as for electricity purposes) is carried out by using the repair mortal AAC-fill or by using a filler based upon a binder of modified gypsum. After treatment of the joints and local irregularities in the surface with AAC-fill the partition is fit as substrate to be finished with ceramic tiling, wall-paper, or other thin finishing coats. The application of the finishing coat is to be carried taking account of the prescriptions that are belonging to the specific finishing coat.

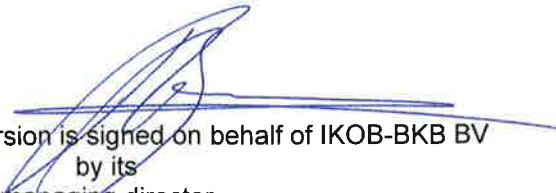
5. Recommendations

5.1 Recommendations on packaging, transport and storage

Transport and storage of the panels and the ancillary materials shall be carried out under dry conditions
The adhesive mortar and repair mortar shall be stored dry and free from freezing.

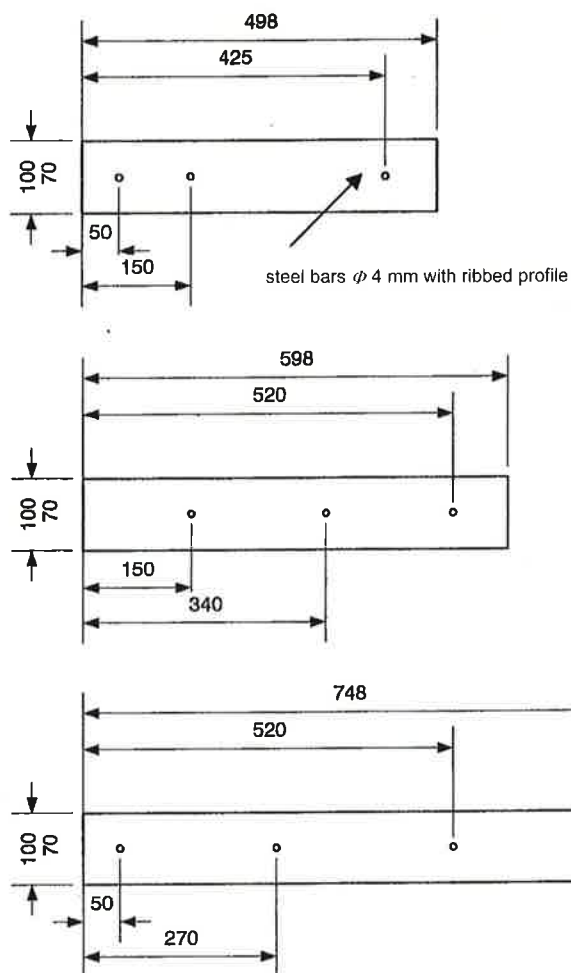
5.2 Recommendations on use, maintenance and repair

Except for aesthetic reasons no special maintenance is required. Damages however should principally be repaired, if might occur. In general the partition wall can be easily repaired using the repair mortar.



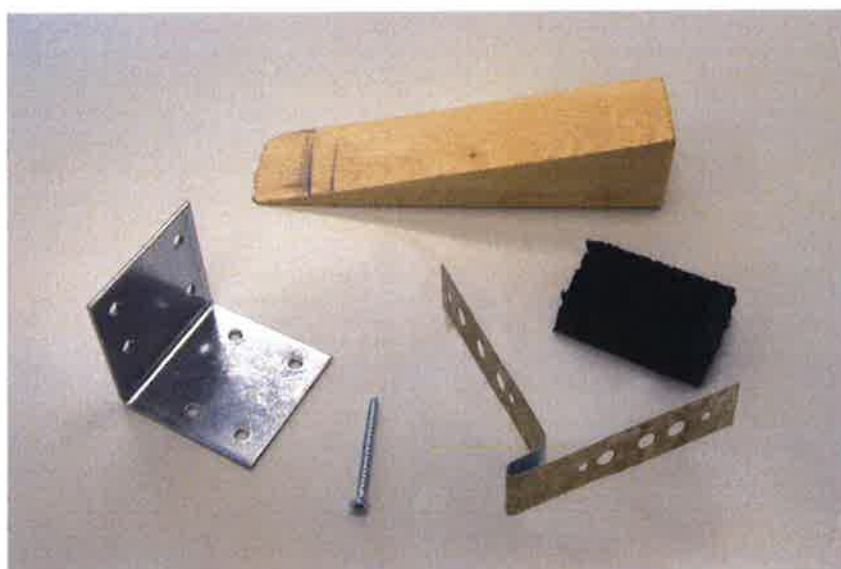
The original English version is signed on behalf of IKOB-BKB BV
by its
managing director
drs. ing. B. Benz

ANNEX 1. Description of product(s)



YTONG/Hebel Panel
 Type G4/600 or G5/800
 Thickness 70, 75 or 100 mm
 Width 498, 598 or 748 mm

Figure 1 – Cross section over YTONG/Hebel panel



Wooden wedge

Rubber block

Material: granulated rubber
 Dimensions: 60 mm x 40 mm x 15 mm

Resilient anchor

Material: galvanized steel
 Steel strip 22 mm x 0,7 mm
 Length: 90-6-16-90 mm SV (Z275)

Angle bracket

Material: galvanized steel
 Steel sheet 57 mm x 2,00 mm
 60 mm x 60 mm SV (Z275)

Self drilling screw

Type: Chip board screw
 Galvanized steel
 Ø 5,0 mm
 Length 70 mm

Figure 2 - Ancillary materials

YTONG non-loadbearing internal partion - schematic details

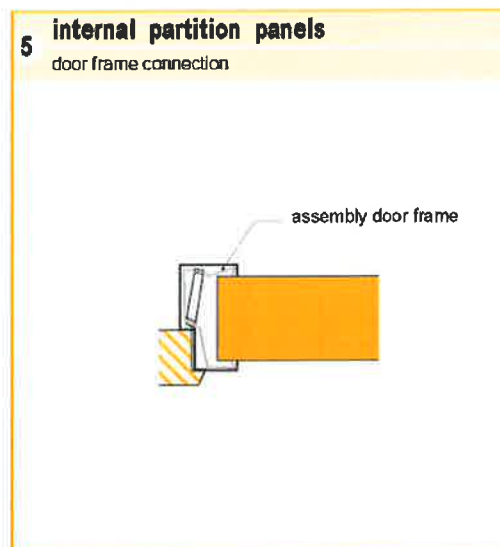
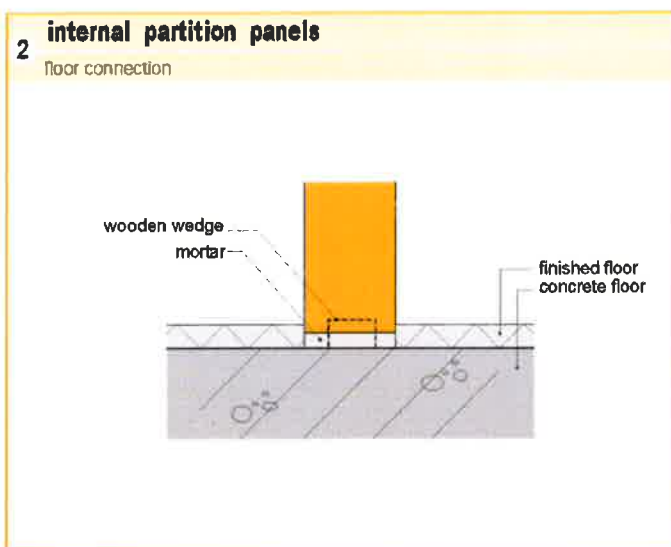
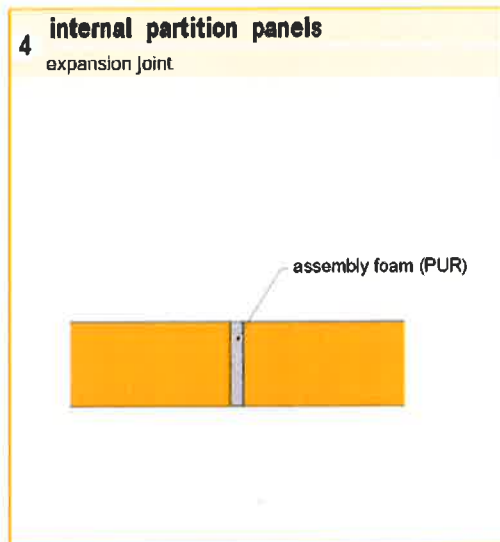
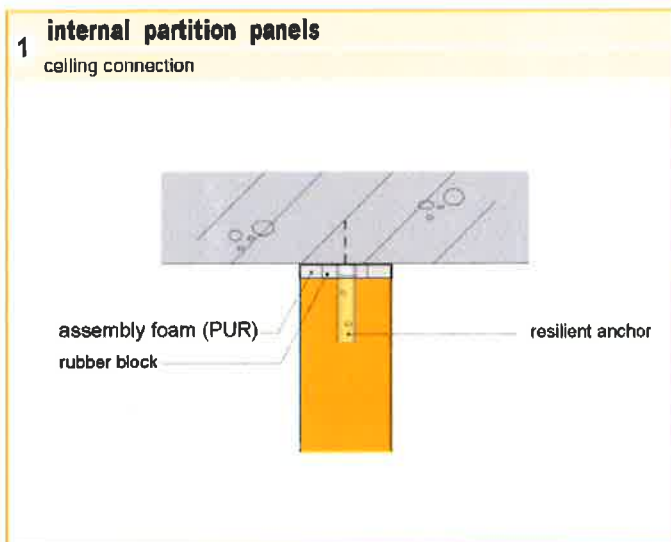
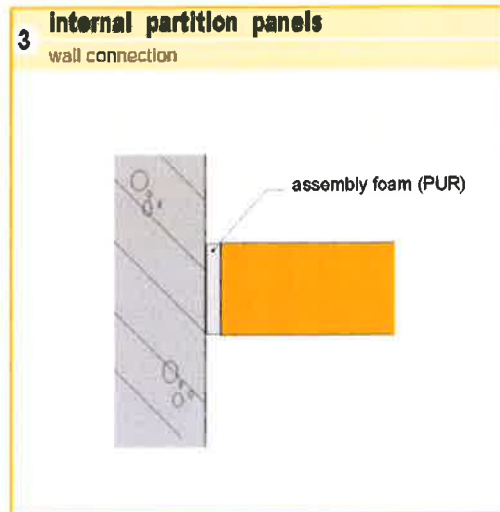
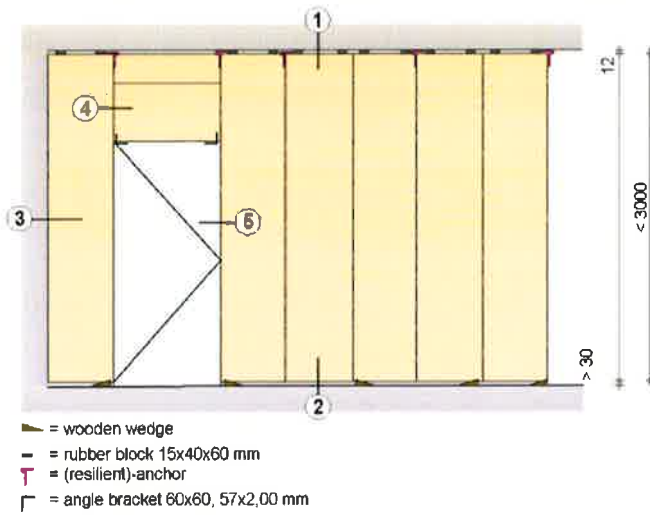


Figure 3 - Example of Internal partition with YTONG/Hebel panels

