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### European Technical Assessment ETA-10/0224 of 06/09/2015

**General Part** 

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

DEKO partition type FG

Product family to which the above construction product belongs:

Glazed relocatable non-loadbearing internal partition kit

Manufacturer:

DEKO loft+væg pls Mårkærvej 11 DK-2630 Tåstrup Tel. +45 43 55 77 11 Fax +45 43 55 77 12

Manufacturing plant:

DEKO loft+væg pls Mårkærvej 11 DK-2630 Tåstrup

This European Technical Assessment contains:

17 pages including 2 annexes which form an integral part of the document

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of: Guideline for European technical approval for "Internal Partition Kits for use ad Non-Loadbearing Walls", used as European Assessment Document (EAD) according to Article 66 Paragraph 3 of Regulation (EU) No 305/2011.

This version replaces:

The previous ETA with the same number issued on 2013-02-01 and expiry on 2015-09-06

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### II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

## 1 Technical description of product and intended use

### Technical description of the product

DEKO FG are glazed partitions, consist 1 layer glass elements and a range of aluminium profiles and jointing tapes. The connections between the glass elements can be made as either open joints or sealed joints with aluminium profiles or jointing tape. The connections to the surrounding structure are established with aluminium profiles and jointing tapes, see Annex 1 for profiles and connection details.

All the DEKO FG Partition kits can be equipped with doors.

The components of the kit appear from the component list in annex 1.

### Specification of the intended use in accordance with the applicable European Assessment Document

DEKO partitions type FG are intended to be used as lightweight relocatable partition kits for offices, administration and public buildings, with average air temperature range  $5\,^{\circ}\text{C}$  -  $35\,^{\circ}\text{C}$  and average relative daily humidity range  $20\,^{\circ}\text{RH}$  -  $75\,^{\circ}\text{RH}$ .

### Components of the kit

#### Glass panes

The following glass panes are used in the glazed partitions

- Type FG with 10 mm toughened glass wall height up to 2500 mm
- Type FG with 12 mm toughened glass wall height up to 3000 mm
- Type FG with 15 mm toughened glass wall height up to 4000 mm
- Type FG with 10,8 mm toughened/toughened laminated glass wall height up to 2100 mm
- Type FG with 12,8 mm toughened/toughened laminated glass wall height up to 2400 mm
- Type FG with 16,8 mm toughened/toughened laminated glass wall height up to 3000 mm

The build-up of the glass panes appear from the component list in annex 1

#### **Aluminium profiles**

All visible, connecting profiles are extruded aluminium profiles with powder-coated or natural anodised surfaces. See annex 1 for aluminium profiles

#### Accessories

Jointing tapes and profiles from other materials are described in annex 1.

The tests and assessment have been based on the assumption that the working life of DEKO partitions FG for the above described intended use is at least 25 years. This cannot be understood as a guarantee given by DEKO loft+væg p|s or ETA-Danmark A/S.

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

### 3 Performance of the product and references to the methods used for its assessment

Cha	aracteristic	Assessment of characteristic		
3.2	Safety in case of fire (BWR 2)			
	Reaction to fire	The aluminium. and steel profiles are classified as Euroclass A1.		
3.3	Hygiene, health and the environment (BWR 3)			
	Influence on air quality	The product does not contain/release dangerous substances specified in TR 034, dated March 2012. *		
3.4	Safety in use (BWR 4)			
	Resistance to structural damage from impact loads.	Partitions type: Type FG with 10 mm toughened glass wall height up to 2500 mm Type FG with 12 mm toughened glass wall height up to 3000 mm Type FG with 15 mm toughened glass wall height up to 4000 mm Type FG with 10,8 mm toughened/toughened laminated glass wall height up to 2100 mm Type FG with 12,8 mm toughened/toughened laminated glass wall height up to 2400 mm Type FG with 16,8 mm toughened/toughened laminated glass wall height up to 3000 mm  Satisfactory resistance to Use category IV b, described as "Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse" and tested with a soft body energy level (up to 1.5 m above pedestrian level) of 500 Nm and a hard body energy level of 10 Nm.		
	Resistance to structural damage and functional failure from eccentric vertical loads.  Safety against personal injury by contact	No performance assessed  When properly installed, the system does not contain sharp or abrasive components liable to cause personal		
		injury.  Partition type FG		
3.5	Protection against noise (BWR 5)  Sound insulation	Dependent on type and number of boards, see Table 2 Annex 2.		
	Sound absorption	Partition type FG See Table 3 Annex 2.		

Characteristic		Assessment of characteristic	
3.6	Energy economy and heat retention (BWR 6)		
	Thermal resistance	No performance assessed	
	Thermal inertia	No performance assessed.	
3.7	Related aspects of durability and serviceability (BWR 7)		
	Resistance to functional failure from impact loads.	All partition types: <b>Use category IV</b> Maximum deflection with $3 \times 120$ Nm: With all glass types: $< 0.5$ mm at $1.5$ m	
	Resistance to point loads.	No performance assessed	
	Protection against deterioration caused by hygrothermal conditions.	No performance determined as the movement caused by differential temperatures on the system within the range indicated under the intended use would be small and insufficient to cause any noticeable bowing or deformation of the surface.	
	Protection against deterioration caused by corrosion.	The system has a sufficient protection against corrosion since all profiles are aluminium profiles.	
	Protection against deterioration caused by cleaning agents.	The system has a sufficient protection against cleaning agents.	
	Protection against deterioration caused by biological agents.	The use of the system does not encourage infestation, as there is no food value in the materials used. The designer shall consider the relevant needs for ventilation, heating and insulation to minimise condensation in service.	

<sup>\*)</sup> In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, 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 Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

# 3.9 General aspects related to the performance of the product

The European Technical Assessment is issued for the product on the basis of agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The performance of DEKO FG glazed partitions results from the characteristic values and categories.

The performance of the DEKO FG glazed partitions can be assumed only, if the following aspects are considered:

- only those components which are specified components of the DEKO FG glazed partitions can be used,
- the appropriate tools shall be used and adjuvant, precautions shall be taken,
- All materials shall be manufactured by DEKO loft+ væg p|s or by subcontractors using DEKO loft + væg p|s tools under the responsibility of DEKO loft+ væg p|s.
- Installation details and application details for the man on site are given by DEKO loft + væg p|s in the Manufacturers Installation Guide dated February 2011 for the FG partitions which forms part of the documentary material for this ETA and which shall always accompany the kit delivered to the site.

The partitions are considered capable of being dismantled and reinstalled without loss of properties and without substantial repair other than replacement of ancillary components such as seals and fixings. In general, the process itself requires a certain amount of skill and the use of tools.

The information as to the handling of waste products shall be observed.

It is the manufacturer's responsibility to make sure that all those who utilize the DEKO FG glazed partitions will be appropriately informed about the specific conditions according to this ETA.

# 4 Assessment and verification of constancy of performance (AVCP)

### 4.1 AVCP system

According to the decision 1999/454/EC of the European Commission, as amended by 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 1.

# 5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark

Issued in Copenhagen on 2015-09-06 by

Thomas Bruun

Managing Director, ETA-Danmark

### Annex 1 Product specification – component list

### **DEKO FG aluminium profiles:**

Extruded aluminium profiles

AGGP	Floor/ceiling profile		Length 300 cm	t = 1,60mm
AGGPT	Telescopic ceiling profile		Length 300 cm	t = 2,50-3,00mm
AGVP	Wall starter		Length 300 cm	t = 1,60mm
AGVPA	Wallstarter, open	L	Length 300 cm	t = 1,60mm
AGVPT	Wallstarter, open	1	Length 300 cm	t = 1,60mm
AGTT	T-joint profile		Length 300 cm	t = 1,50mm
AGLA	Connection profile, plane surface	T	Length 300 cm	t = 1,60mm
AGLT	Connection profile, plane surface	1	Length 300 cm	t = 1,60mm
AGHLA-90	Connection profile, 90° corner	E	Length 300 cm	t = 1,60mm
AGHLT-90	Connection profile, 90° corner	}	Length 300 cm	t = 1,60mm
AGHLA-135	Connection profile, 135° corner	*	Length 300 cm	t = 1,60mm
AGHLT-135	Connection profile, 135° corner	بر	Length 300 cm	t = 1,60mm
80mm FG26 frame	Aluminium frame, glazed door		Length 315 cm	t = 1,75mm
92mm FG40 frame	Aluminium frame, solid door		Length 315 cm	t = 1,75mm

AGVP-2	Connection to DEKO 1090 partition systems	Length 300 cm t = 1,60mm
AGVP-3	Connection to DEKO 1290 partition systems	Length 300 cm t = 1,60mm
AGVP-122-70	Connection to 122mm dry wall	Length 300 cm t = 1,60mm
FG34 Frame	Aluminium frame, glazed door	Length 315 cm t = 1,75mm

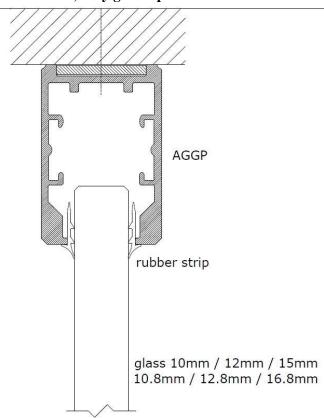
### $DEKO\ FG-other\ materials$

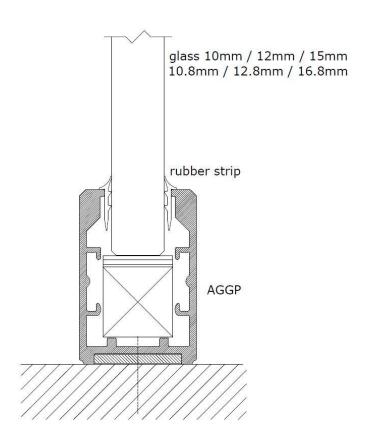
Rubber strip for AGGP profile	7	Different profiles for 10, 12 and 15mm glass and the laminated glas
Silicone joint for glass connection		Thickness 1,5-2-3mm x 9mm for 10+12mm glass Thickness 3mm x 12mm for 15+16,4mm glass
DEKO Tex		1,5x5mm sealing strip 60m pr. roll
Joint for AGVP+AGGP		4,8x19mm sealing strip 30m pr. roll
Endcover for AGGP	DEKO	26x40mm PVC

### DEKO FG – glass

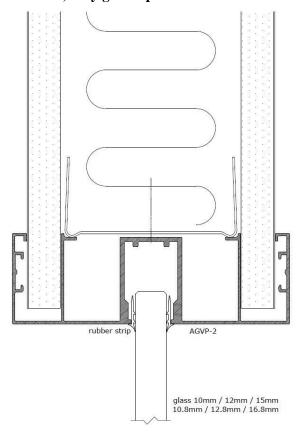
10mm glass	10mm clear toughened glass
12mm glass	12mm clear toughened glass
15mm glass	12mm clear toughened glass
10,8mm laminated glass	 5mm toughened glass + 0,76mm laminate + 5mm toughened glass
12,8mm laminated glass	 6mm toughened glass + 0,76mm laminate + 6mm toughened glass
16,8mm laminated glass	 8mm toughened glass + 0,76mm laminate + 8mm toughened glass

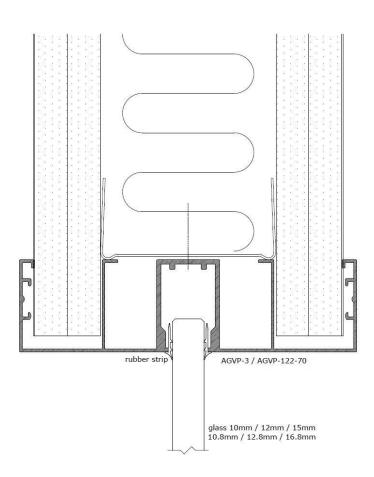
**DEKO FG**, fully glazed partition - vertical section



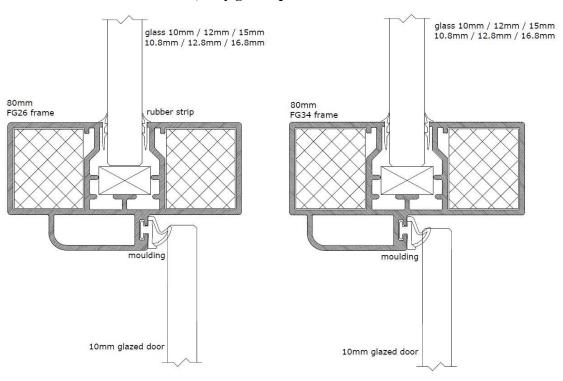


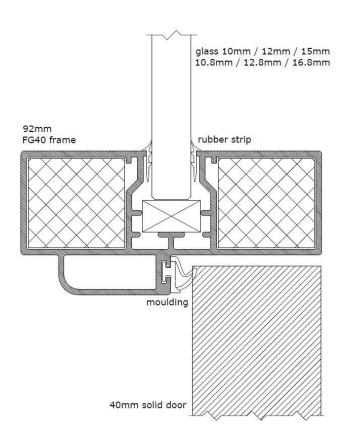
DEKO FG, fully glazed partition - vertical section



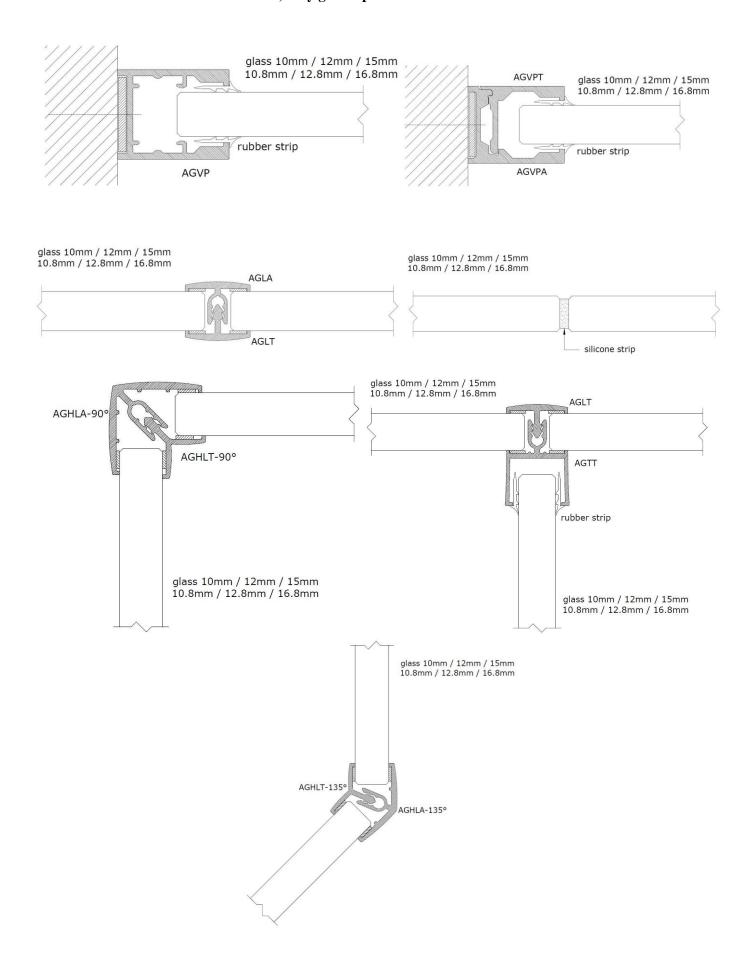


DEKO FG, fully glazed partition - vertical section

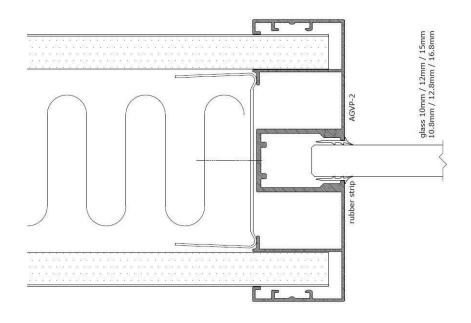


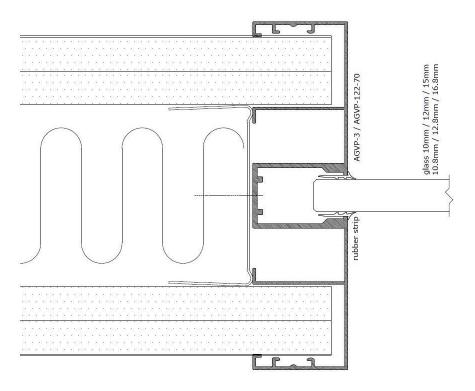


### DEKO FG, fully glazed partition - horizontal section

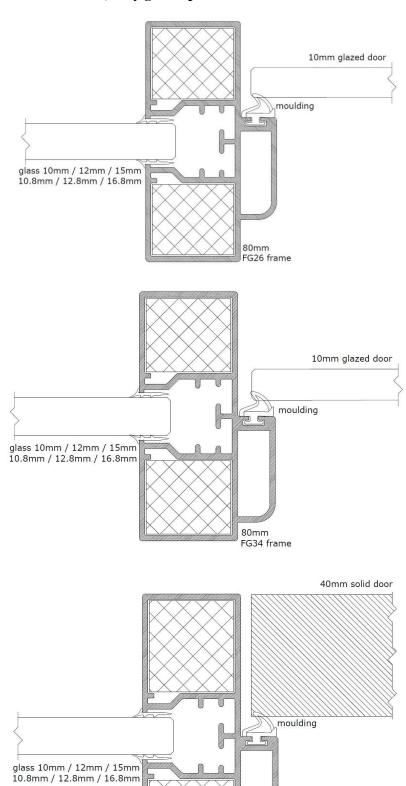


**DEKO FG, fully glazed partition – horizontal section** 





DEKO FG, fully glazed partition - horizontal section



92mm FG40 frame

### Annex 2 Characteristics of the assembled kit

 Table 1

 Indication of expected weighted ratings for the airborne sound insulation:

Wall type	Expected R <sub>w</sub>
Type FG with 10 mm toughened glass wall	34 dB
Type FG with 12 mm toughened glass wall	35 dB
Type FG with 15 mm toughened glass wall	36 dB
Type FG with 10,8 mm toughened/toughened laminated glass wall	35 dB
Type FG with 12,8 mm toughened/toughened laminated glass wall	36 dB
Type FG with 16,8 mm toughened/toughened laminated glass wall	38 dB

 Table 2

 Indication of the expected sound absorption coefficient for all wall types to be:

Frequency	125	250	500	1000	2000	4000
α	0,18	0,06	0,04	0,03	0,02	0,02

Field of application for DEKO partition kits type FG

Field of application	The above mentioned classification of the Deko partition type FG with 10,0 mm to 16,8 mm laminated glass is valid for the following end use conditions of the wall:  - Glass panes as specified in DEKO FG – glass - With unlimited decrease in the height of the partition according to maximum height state in clause 3.4 Safty in use With unlimited decrease or increase in width of the partition - With unlimited increase in thickness of the partition and/or components of the kit - With unlimited decrease in the linear dimensions of the glass panes under the condition that the sight height and the sight width of the glass panes are decreased equivalently - With unlimited decrease of the spacing of the fixings
	<ul> <li>With unlimited decrease of the spacing of the fixings</li> <li>With joints of the type tested</li> </ul>