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## European Technical Assessment

**ETA 11/0306  
of 09.05.2017**



### General part

#### Technical Assessment Body issuing the ETA: ITeC

ITeC has been designated according to Article 29 of Regulation (EU) No 305/2011 and is member of EOTA (European Organisation for Technical Assessment)

**Trade name of the construction product**

**M5 and FUTURA**

**Product family to which the construction product belongs**

21 – Internal partition kits

**Manufacturer**

**IBERMODUL SA**

Gorg del Molí d'en Puigverd, 19-20  
ES-08389 Palafolls (Barcelona)  
Spain

**Manufacturing plant(s)**

Gorg del Molí d'en Puigverd, 19-20  
ES-08389 Palafolls (Barcelona)  
Spain

**This European Technical Assessment contains**

41 pages including 5 annexes which form an integral part of this assessment.

**This European Technical Assessment is issued in accordance with Regulation (EU) 305/2011, on the basis of**

ETAG 003, *Internal Partition Kits*, edition December 1998, Amended April 2012 used as European Assessment Document (EAD)

**This Assessment replaces**

ETA 11/0306 issued on 08.09.2016

**General comments**

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es)).

## Specific parts of the European Technical Assessment

### 1 Technical description of the product

*M5 and FUTURA* internal partition kit consists of M5 and FUTURA series which are assembled from standard modular units. Those units consist of a metal framework covered by opaque panels, glazed units, doors and combinations of them.

Metal framework is made of aluminium uprights and braces fixed to each other, and to other additional metal components by self-drilling screws. The framework is connected to the building structure by means of plastic anchors and screws. A brace or an upright is placed in joints between panel to panel, panel to glass and glass to glass. In some configurations, an additional brace is needed behind the panel; placement rules are shown in Annex 1.

Opaque panels are composed by:

- Wood-based panels (particleboards) with melamine finishing coating and bordered with PVC edge.
- Zinc coated steel panels with a cassette shape and slots on their sides. It is manufactured by folding and it has a gypsum plasterboard adhered in its back side.

The wood opaque panels are hung on to the framework by means of polypropylene plugs. The metallic opaque panels are hung on to the framework by mean of the slots on their sides.

Wood-based opaque panels are installed with upper and lower-profile of FUTURA or M5 series. Metallic opaque panels are installed with upper and lower profile of FUTURA and M5 series and with upper profile of FUTURA series and lower profile of M5 series.

M5 lower rail does not require a levelling system. FUTURA lower rail requires a levelling system.

Insulation board 50 mm of thickness is placed inside the framework when opaque panels are used.

The components of the kit are manufactured and supplied by Ibermodul SA, whereas other components which are necessary to complete the internal partition are purchased according to the specifications of Ibermodul SA.

The kit includes aluminium profiles, insulation, fixing elements, joint elements, particleboard panels and doors.

Glazed panes are not part of the kit. Glazed panes are bought on the open market by the assembler according to the specifications of Ibermodul SA referred in this ETA (see Annex 4). The specifications for glazed panes are referred to EN 14449 and EN ISO 12543-3.

It is possible to combine modular units of opaque and glazed M5 series, and of opaque and glazed FUTURA series, due to the compatibility criteria.

The list of standard modular units of *M5 and FUTURA* internal partition kit, including their dimensions, is shown in Annex 1.

The list of the components is shown in Annex 2.

Solutions and construction details are shown in Annex 3.

The list of assessed glass models and their suppliers are shown in Annex 4.

### 2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

*M5 and FUTURA* internal partition kit is intended to be used as removable and relocatable internal partition.

The intended use is applicable under the following conditions:

- 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 air relative humidity in the range from 20% RH to 75% RH. Maximum air relative humidity only exceeding 85% RH for short periods of time.
- Zones accessible to users with a certain level of incentive to exercise care. These zones are divided into use categories as shown in tables 3.4 and 3.6.
- Zones where surface requirements with respect to hygiene, air quality, static electricity, etc. are of the same nature and magnitude as those in dwellings, offices, schools, institutions, etc.

The provisions made in this European Technical Assessment are based on an assumed working life of the *M5 and FUTURA* internal partition kit of at least 25 years provided that the conditions laid down in Annex 5 for the packaging, transport, storage, design, installation, use, maintenance and repair are met.

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.

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

The assessment of M5 and FUTURA for the intended use was performed following ETAG 003 *Internal Partition Kits*, used as EAD.

Product: M5 and FUTURA		Intended use: internal partition kit	
Basic Works Requirement	ETA section	Essential characteristic	Performance
BWR 2 Safety in case of fire	3.1	Reaction to fire	See clause 3.1.
	--	Resistance to fire	No performance assessed
BWR 3 Hygiene, health and the environment	3.2	Release of dangerous substances	See clause 3.2
	--	Water vapour permeability	No performance assessed
	--	Water permeability	Not relevant
BWR 4 Safety and accessibility in use	3.3	Resistance to dynamic loads	Use category IV according to table 3.4
	--	Resistance to structural damage from eccentric vertical loads	No performance assessed
	--	Resistance to horizontal linear static loads	No performance assessed
	3.4	Safety against personal injuries by contact	See clause 3.4
BWR 5 Protection against noise	3.5	Airborne sound insulation	See table 3.5
	--	Sound absorption	No performance assessed
BWR 6 Energy economy and heat retention	--	Thermal resistance	No performance assessed
	--	Thermal inertia	No performance assessed

<b>Product:</b> M5 and FUTURA		<b>Intended use:</b> internal partition kit	
<b>Basic Works Requirement</b>	<b>ETA section</b>	<b>Essential characteristic</b>	<b>Performance</b>
Aspects of durability and serviceability	3.6	Robustness and rigidity	
		- Resistance to dynamic loads	Use category IV according to table 3.6
- Resistance to eccentric vertical loads		No performance assessed	
- Resistance to point loads		No performance assessed	
	3.7	- Rigidity of partitions for ceramic tiling	No performance assessed
		Resistance to deterioration caused by	
		- Physical agents	See clause 3.7.
		- Chemical agents	
		- Biological agents	

**Table 3.1:** Performances of M5 and FUTURA.

### 3.1 Reaction to fire

Tables 3.2 and 3.3 show the reaction to fire classification according to Regulation (EU) 2016/364 of the individual kit's components and of M5 and FUTURA series, respectively.

<b>Individual kit components</b>	<b>Specification</b>	<b>EN - Standard/ ETA/Type and brand name</b>	<b>Reaction to fire class</b>
Insulation board	Mineral wool Isover PV - Acustiver 50 mm thickness MW-EN 13162-T3-WS-MU1-AW0,70-AFr5	EN 13162	A1 EC Decision 96/603/EC (as amended)
Zinc coated steel panel	Zinc coated steel sheet DX51	EN 10346	A1 EC Decision 96/603/EC (as amended)
Gypsum plasterboard	Gypsum plasterboard of 12,5 mm - Type A (see Annex 2)	EN 520	A2-s1,d0 Declaration of performance of plasterboard
Aluminium profiles	Aluminium profiles (see Annex 2)	EN 755-9	A1 EC Decision 96/603/EC (as amended)
Glass panes <sup>(1)</sup>	Float glass panes 5 mm thickness (see Annexes 2 and 4)	EN 572-9	A1 EC Decision 96/603/EC (as amended)
	Laminated glass 3+3, 5+5, 6+6 mm of thickness (see Annexes 2 and 4)	EN 14449	A1 EC Decision 96/603/EC (as amended)

<sup>(1)</sup> Note: they are not part of the kit; the list of assessed models of glass panes and manufacturers is included in Annex 4.

**Table 3.2:** Reaction to fire of individual kit components.

The following table shows the classification for the configurations included in the kit and given in the European Technical Assessment.

Assembled kit	Reaction to fire class
Opaque unit using particleboard 16 mm thickness with wall-covering in both sides over an aluminium framework with insulation 50 mm thickness inside <sup>(1) (2)</sup> ;	B-s2,d0

Notes:

(1) The reaction to the fire class is applicable to all the range of wall-coverings described in Annex 2.

(2) This reaction to the fire class is also applicable to opaque panels with zinc coated steel panels.

**Table 3.3:** Reaction to fire class according for M5 and FUTURA series.

### 3.2 Release of dangerous substances

According to the manufacturer's declaration, with the exception of adhesives MA-6585, MA-6707, TN-534 glue, acrylic foam tape VHB RP25, acrylic foam tape MB ADH A7300 G and metallic opaque panels with a gypsum plasterboard that have been declared as not assessed, the specification of the rest of the components has been compared with the dangerous substances listed on EOTA Technical Report 034<sup>1</sup>, with Annex VI of the Regulation (EC) No 1272/2008 of the European Parliament of the Council, of 16 December 2008, on classification, labelling and packaging of substances and mixtures, with the *Indicative list of regulated dangerous substances possibility associated with construction products under the CPD*, DS 041/051 Rev. 12, 22 March 2012 of the EC Experts Group and with Annex XVII and Annex XIV of REACH to verify that the kit does not contain such substances, with the exception of formaldehyde, pentachlorophenol and mineral wool fibres as indicated below.

- Formaldehyde:

The formaldehyde content of particleboards is determined as class E1 in accordance with Annex B of EN 13986.

- Pentachlorophenol (PCP):

The pentachlorophenol (PCP) content of particleboards is < 5 ppm in accordance with CE marking.

- Mineral wool fibres meet the requirements given in Note Q of the Regulation (EC) 1272/2008 and are therefore not potentially carcinogenic<sup>2</sup>.

Note: In addition to the specific clauses relating to dangerous substances contained in this ETA, 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.

### 3.3 Resistance to structural damage from soft and hard body impact load

Resistance to structural damage from soft and hard body impact load has primarily been assessed on the basis of the construction details and later by carrying out laboratory tests following the test procedures described in the ETAG 003 and ISO/DIS 7893:1990. The following table show the classification obtained for wood-based opaque units:

<sup>1</sup> TR 034 *General Checklist for ETAGs/CUAPs/ETAs – Content and/or release substances in products/kits*. Edition March 2012.

<sup>2</sup> Mineral wool used in M5 and FUTURA have the EUCEB's certificate (European Certification Board for Mineral Wool Products).

Use category and energy level <sup>(1)</sup>		
Unit (according to code reference)	Resistance to structural damage from	
	soft body impact load (50 kg bag)	hard body impact load (1 kg steel ball)
A: 4/5/6/7/8/9/13/14/15/16/17/18 <sup>(2)</sup> ; B: 4/5/6/7/8/9/13/14/15/16/17/18 <sup>(2)</sup> ; C: 4/5/6/7/8/9/13/14/15/16/17/18 <sup>(2)</sup> ; D: 4/5/6/7/8/9/13/14/15/16/17/18 <sup>(2)</sup> ; E: 2/3/4/5/6/7/8 <sup>(2)</sup> ; F: 2/3/4/5/6/7/8 <sup>(2)</sup> ; G: 2/3/4/5/6/7/8 <sup>(2)</sup> ; H: 2/3/4/5/6/7/8 <sup>(2)</sup> ;	IVa 400 N·m	IV 10 N·m
A: 1/2/3/10/11/12/19/20/21/22/23/24/25; B: 1/2/3/10/11/12/19/20/21/22/23/24/25; C: 1/2/3/10/11/12/19/20/21/22/23/24/25; D: 1/2/3/10/11/12/19/20/21/22/23/24/25; E: 1/9; F: 1; G: 1; H: 1;	IVb 500 N·m	IV 10 N·m

<sup>(1)</sup> Note: According to ETAG 003, and as specified in Eurocode 1 (EN 1991-1-1):

- Use category IV corresponds to area categories C5 (areas susceptible to overcrowding) + A (areas for domestic and residential activities), B (office areas), C1-C4 (areas where people may concentrate), D1-D2 (shopping areas) where the partition has barrier functions.

<sup>(2)</sup> Note: This classification does not apply to glass frame for 2 glass panes 7046.

**Table 3.4:** Resistance to structural damage from soft and hard body impact load for *M5 and FUTURA* series.

Resistance to structural damage from soft and hard body impact load for metallic opaque units and glass frame for 2 glass panes 7046 has not been assessed.

### 3.4 Safety against personal injury by contact

The geometry of the partitions made of the *M5 and FUTURA* kit does not contain any sharp and cutting edges (if it is manufactured and installed according to manufacturer instructions) and there is no risk of abrasion or cutting people or people's clothing rising from the nature of the surfaces.

### 3.5 Airborne sound insulation

Weighted airborne sound insulation index  $R_w$  ( $C;C_{tr}$ ), A spectrum weighted airborne sound insulation index [ $R_A$ ] for internal walls as defined in ETAG 003, is expressed as follows:

Assembled kit (according to code reference)	Weighted airborne sound insulation index	
	[ $R_w$ ( $C;C_{tr}$ )] (dB)	With A spectrum weighting [ $R_A$ ] (dBA)
<b>M5 series – Wood-based opaque units</b>		
H: 1 (width 1.200 mm)	42 (-2; -6)	40,6
A: 1/2/3/10/11/12; B: 1/2/3/10/11/12; C: 1/2/3/10/11/12; D: 1/2/3/10/11/12; E: 1/9; F: 1; G: 1; H: 1; (except H: 1, width 1.200 mm)	≥ 39 (-2; -5)	≥ 37,9
<b>M5 series - Framed glazed units (except frame 7046)</b>		
A: 7/8/9/16/17/18; B: 7/8/9/16/17/18; C: 7/8/9/16/17/18; D: 7/8/9/16/17/18; E: 6; F: 6; G: 6; H: 6;	≥ 37 (-2; -5)	≥ 35,9

<b>Weighted airborne sound insulation index</b>		
<b>Assembled kit (according to code reference)</b>	<b>[R<sub>w</sub> (C;C<sub>tr</sub>)] (dB)</b>	<b>With A spectrum weighting [R<sub>A</sub>] (dBA)</b>
<b>M5 series - Butt-joint glazed units</b>		
A: 25; B: 25; C: 25; D: 25; - 1 butt-joint laminated glass pane: 5+5 mm or 6+6 mm	≥ 31 (-1; -3)	≥ 31,1
A: 25; B: 25; C: 25; D: 25 (except D: 25 width 1.031 mm) - 2 butt-joint laminated glass panes: 5+5 and 5+5 mm	≥ 37 (0; -3)	≥ 37,3
<b>M5 series – Combined units (Wood-based opaque units and framed glass units – except frame 7046)</b>		
A: 4/5/6/13/14/15; B: 4/5/6/13/14/15 C: 4/5/6/13/14/15; D: 4/5/6/13/14/15 E: 2/3/4/5/7/8; F: 2/3/4/5/7/8; G: 2/3/4/5/7/8; H: 2/3/4/5/7/8;	≥ 37 (-2; -5)	≥ 35,9
A: 19/20/21/22/23/24; B: 19/20/21/22/23/24 C: 19/20/21/22/23/24; D: 19/20/21/22/23/24 - 1 butt-joint laminated glass pane: 5+5 mm or 6+6 mm	≥ 31 (-1; -3)	≥ 31,1
A: 19/20/21/22/23/24; B: 19/20/21/22/23/24 C: 19/20/21/22/23/24; D: 19/20/21/22/23/24 - 2 butt-joint laminated glass panes: 5+5 and 5+5 mm	≥ 37 (0; -3)	≥ 37,3
<b>FUTURA series - Wood-based opaque units</b>		
C: 12 (width: 1.600 mm)	39 (-2; -5)	37,9
H: 1 (width: 1.200 mm)	40 (-2; -6)	38,9
A: 1/2/3/10/11/12; B: 1/2/3/10/11/12 C: 1/2/3/10/11/12; D: 1/2/3/10/11/12 (except C: 12 width 1.600) E: 1/9; F: 1; G: 1; H: 1 (except H: 1 width 1.200 mm)	≥ 39 (-2; -5)	≥ 37,9
<b>FUTURA series - Framed glazed units (except profile 7046)</b>		
C: 18 (width 1.600 mm) - 2 float glass panes 5 and 5 mm	40 (-2; -6)	38,2
G: 6 (width: 1.200 mm) - 2 float glass panes 5 and 5 mm	37 (-2; -5)	35,9
A: 7/8/9/16/17/18; B: 7/8/9/16/17/18 C: 7/8/9/16/17/18; D: 7/8/9/16/17/18 (except C: 18 width 1.600 mm, 2 float glass panes 5 and 5 mm) E: 6; F: 6; G: 6; H: 6 (except H: 6 width 1.200 mm, 2 float glass panes 5 and 5 mm)	≥ 37 (-2; -5)	≥ 35,9



<b>Weighted airborne sound insulation index</b>		
<b>Assembled kit (according to code reference)</b>	<b>[R<sub>w</sub> (C;C<sub>tr</sub>)] (dB)</b>	<b>With A spectrum weighting [R<sub>A</sub>] (dBA)</b>
<b>FUTURA series - Butt-joint glazed units</b>		
D: 25 (width: 1.031 mm) - 1 butt-joint laminated glass pane: 5+5 mm	31 (-1; -3)	31,1
A: 25; B: 25; C: 25; D: 25; (except D: 25 width 1.031 mm) - 1 butt-joint laminated glass pane: 5+5 mm or 6+6 mm	≥ 31 (-1; -3)	≥ 31,1
D: 25 (width 1.031 mm) - 2 butt-joint laminated glass panes: 5+5 and 5+5 mm	37 (0; -3)	37,3
A: 25; B: 25; C: 25; D: 25; (except D: 25 width 1.031 mm) - 2 butt-joint laminated glass panes: 5+5 and 5+5 mm	≥ 37 (0; -3)	≥ 37,3
<b>FUTURA series - Combined units (Wood-based opaque units and framed glass units – except profile 7046)</b>		
A: 4/5/6/13/14/15; B: 4/5/6/13/14/15 C: 4/5/6/13/14/15; D: 4/5/6/13/14/15 E: 2/3/4/5/7/8; F: 2/3/4/5/7/8; G: 2/3/4/5/7/8; H: 2/3/4/5/7/8;	≥ 37 (-2; -5)	≥ 35,9
A: 19/20/21/22/23/24; B: 19/20/21/22/23/24 C: 19/20/21/22/23/24; D: 19/20/21/22/23/24 - 2 butt-joint laminated glass panes: 5+5 and 5+5 mm	≥ 37 (0; -3)	≥ 37,3
A: 19/20/21/22/23/24; B: 19/20/21/22/23/24 C: 19/20/21/22/23/24; D: 19/20/21/22/23/24 - 1 butt-joint laminated glass pane: 5+5 mm or 6+6 mm	≥ 31 (-1; -3)	≥ 31,1

**Table 3.5:** *M5* and *FUTURA* airborne sound insulation.

Airborne sound insulation for metallic opaque units, framed glass units with profile 7046 and their combinations has not been assessed.

### 3.6 Resistance to dynamic loads

Resistance to functional failure from soft and hard body impact load has primarily been assessed on the basis of the construction details and later by carrying out laboratory tests. The tests were carried out following the test procedures described in the ETAG 003. The following table shows the classification for wood-based opaque units:

Use category and energy level <sup>(1)(2)</sup>		
Unit (according to code reference)	Resistance to functional failure from:	
	soft body impact load (50 kg bag)	hard body impact load (0,5 kg steel ball)
A: 1 to 25; C: 1 to 25; E: 1 to 9; G: 1 to 8;	IV 120 N·m	IV 6 N·m
B: 1 to 25; D: 1 to 25; F: 1 to 8; H: 1 to 8;		

<sup>(1)</sup> Note: According to ETAG 003, and as specified in Eurocode 1 (EN 1991-1-1):

- Use category IV corresponds to area categories C5 (areas susceptible to overcrowding) + A (areas for domestic and residential activities), B (office areas), C1-C4 (areas where people may concentrate), D1-D2 (shopping areas) where the partition has barrier functions.

<sup>(2)</sup> Note: This classification does not apply to glass frame for two glass panes 7046.

**Table 3.6:** Resistance to functional failure from soft and hard body impact load for *M5* and *FUTURA* series.

Resistance to functional damage from soft and hard body impact load for metallic opaque units and framed glass units with profile 7046 has not been assessed.

### 3.7 Resistance to deterioration

#### 3.7.1 Physical agents

Resistance to deterioration caused by hygrothermal conditions, which include variations in temperature/humidity where the same changes occur on both sides of the partition at the same time, and differences in temperature and/or relative humidity on one side of a partition compared to the other, is acceptable without specific tests due to well-known used materials and the manufacturer experience.

No performance assessed in case of localised heating from heating panels or radiators located next to the partition.

#### 3.7.2 Chemical agents

Acceptable without specific tests for corrosion and cleaning agents.

##### Corrosion:

The thickness of lacquered coating applied in the aluminium profiles (60 micron) or the thickness of anodized (15 micron) and its type (aluminium designation code EN AW-6063 [EN AW-Al Mg0,7Si], according to EN 573-3) with durability rating B according to EN 1999-1-1 are enough for the corrosivity category C1 and C2 according to ISO 9223, corresponding to their intended uses.

The corrosion protection thickness Z100 (100 g/m<sup>2</sup>) along with the epoxy-polyester paint layer of 35-40 µm of the DX51D steel panels are enough for the corrosivity category C1 according to ISO 9223.

C1 ambient according to ISO 9223 corresponds to an indoor ambient with heating and clean atmosphere for example offices, schools, etc. so the metallic components of the kit are fit for the intended use.

##### Cleaning agents:

Resistance to deterioration caused by cleaning agents is acceptable based on the well-known cleaning products to be used, using 5% of neutral detergent dissolved in 95% of water. Aggressive products, carbonated solutions, alkaline solutions, acid solutions, solvents or organic dissolvent which chemical composition is not known, are not allowed.

Use a soft sponge, leather cloth or humid duster instead of abrasive materials or scourers.

#### 3.7.3 Biological agents

Acceptable without specific tests.

#### 4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

According to the European mandate Construct 98/213/EC, Annex 3, amended by European Commission decision 2001/596/EC, the systems of AVCP (see EC delegated regulation (EU) No 568/2014 amending Annex V to Regulation (EU) 305/2011) given in the following table applies.

Product	Intended use	Level or class	System
M5 and FUTURA	Internal Partition Kit	Any	3

**Table 4.1:** Applicable AVPC system.

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

All the necessary technical details for the implementation of the AVCP system are laid down in the *Control Plan* deposited with the ITeC<sup>3</sup>, with which the factory production control shall be in accordance.

Issued in Barcelona on 9 May 2017

by the Catalonia Institute of Construction Technology.



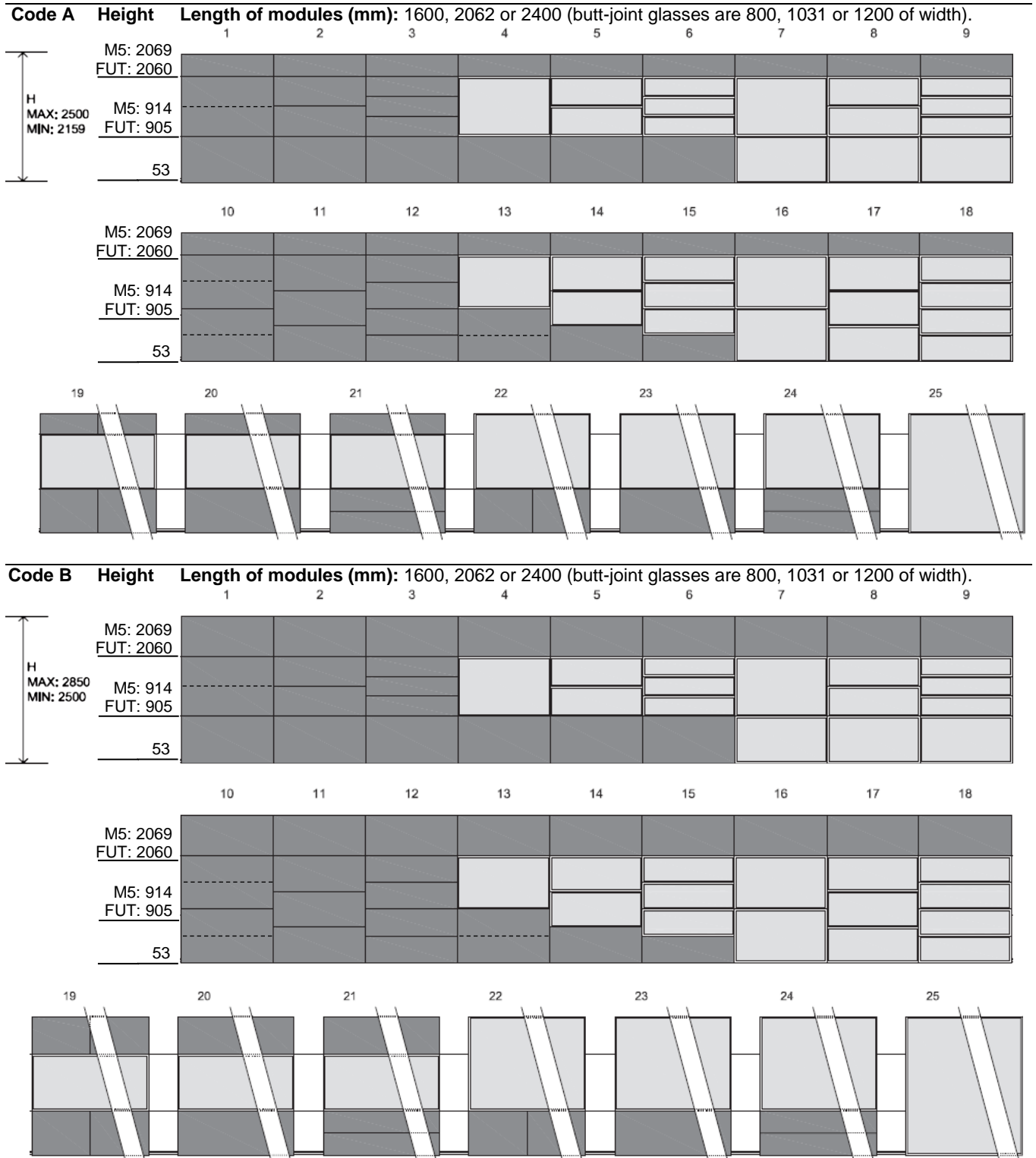
Ferran Bermejo Nualart  
Technical Director, ITeC

<sup>3</sup> The *Control Plan* is a confidential part of the ETA and is only handed over to the notified certification body involved in the assessment and verification of constancy of performance.

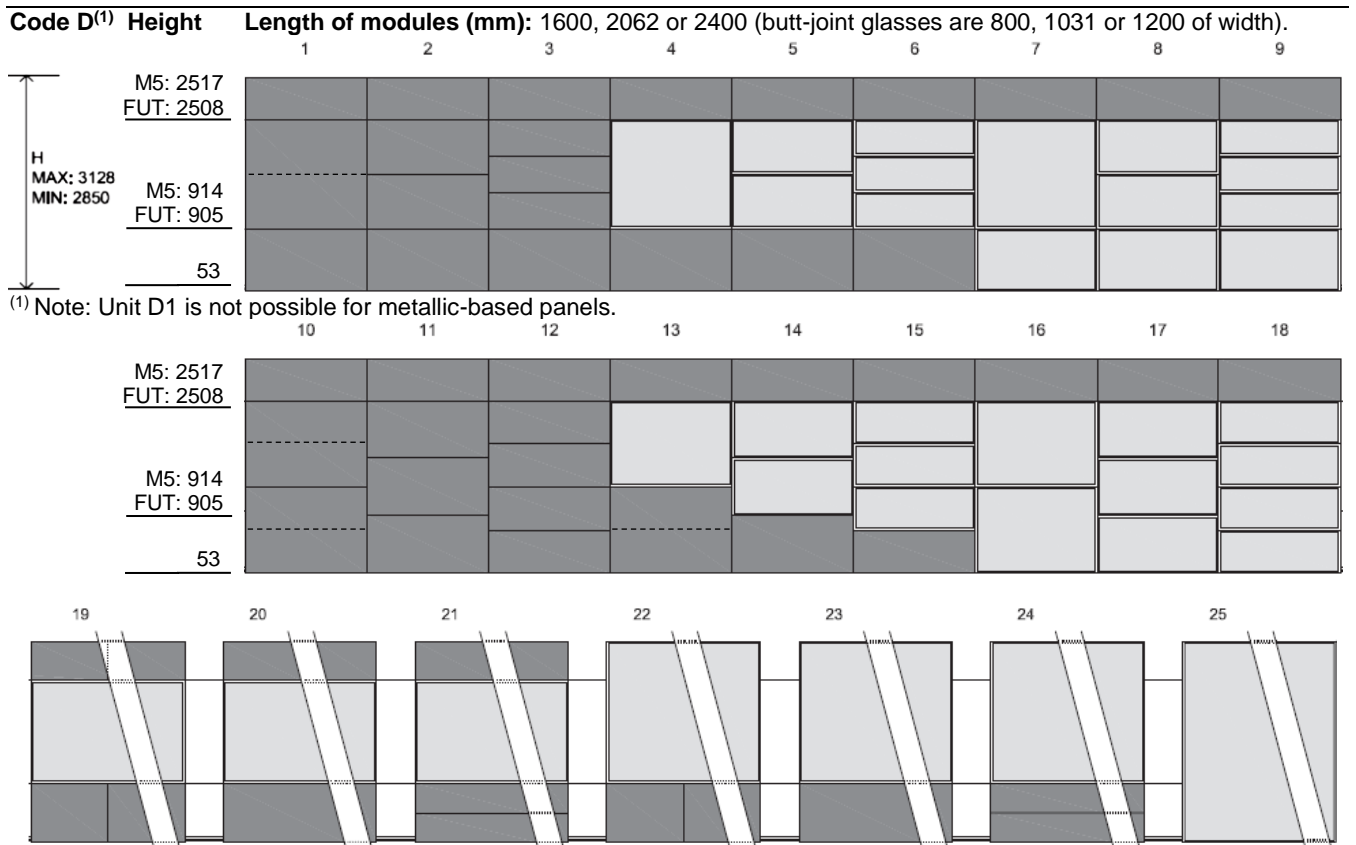
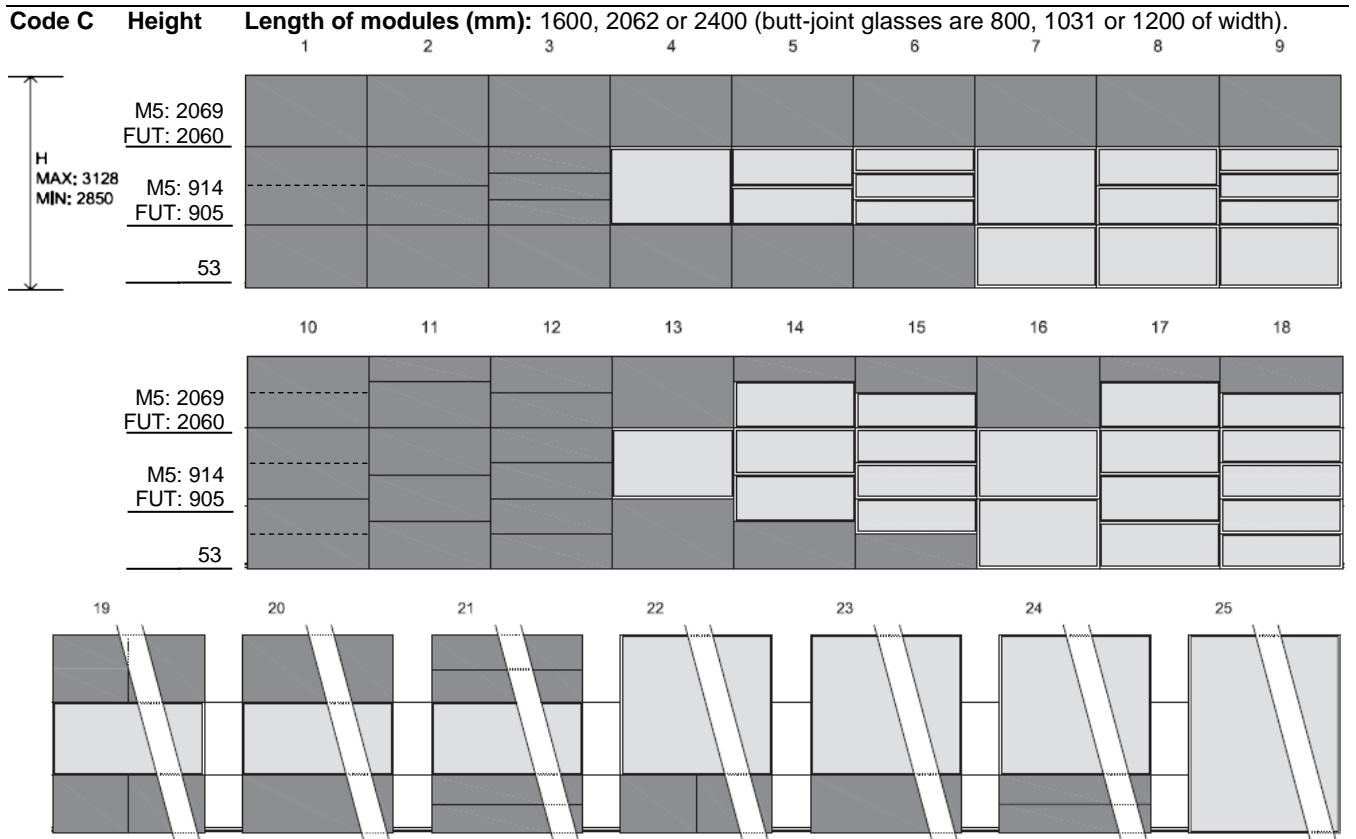
## ANNEX 1: Standard modular units

### Standard horizontal modular units of *M5* and *FUTURA* kit. Elevation

Note that brace profiles are used behind the panel in some configurations, at the height of 1.170 mm.



**Table A1.1:** Module code A and B. Standard horizontal modular units of *M5* and *FUTURA* kit. Elevation.



**Table A1.2:** Module code C and D. Standard horizontal modular units of *M5* and *FUTURA* kit. Elevation.

**Standard vertical modular units of M5 and FUTURA kit. Elevation**

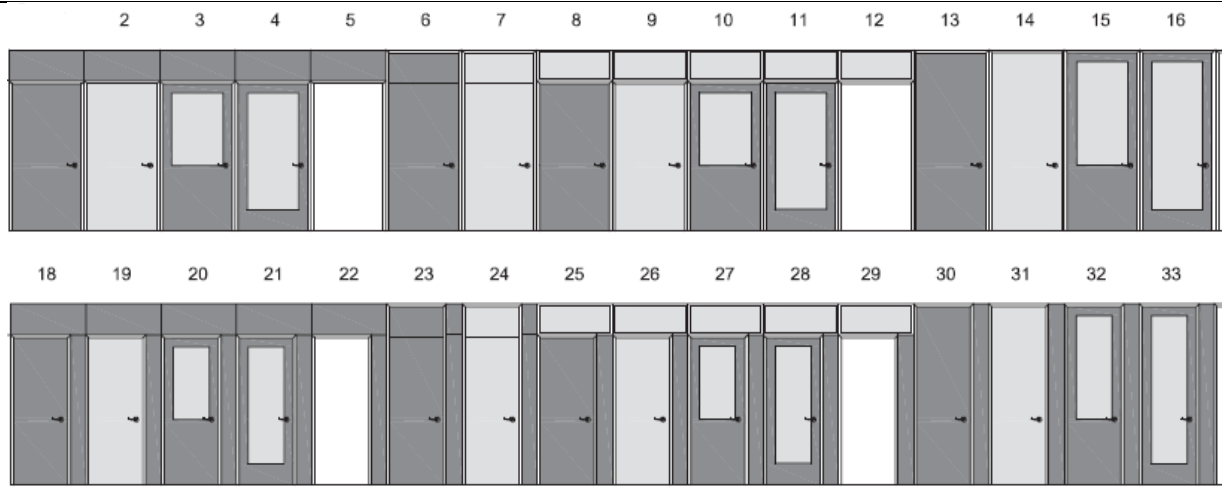
Note that brace profiles are used behind the panel in some configurations, at the height of 1.250 mm.

Code E	Height (mm)	Length of modules (mm): 800, 1031 or 1200.
		1    2    3    4    5    6    7    8    9
<p>H MAX: 2500 MIN: 2150</p>	M5: 2069 FUTURA: 2060	
	M5: 914 FUTURA: 905	
	53	
Code F	Height (mm)	Length of modules (mm): 800, 1031 or 1200.
		1    2    3    4    5    6    7    8
<p>H MAX: 2850 MIN: 2500</p>	M5: 2069 FUTURA: 2060	
	M5: 914 FUTURA: 905	
	53	
Code G	Height (mm)	Length of modules (mm): 800, 1031 or 1200.
		1    2    3    4    5    6    7    8
<p>H MAX: 3128 MIN: 2850</p>	M5: 2069 FUTURA: 2060	
	M5: 914 FUTURA: 905	
	53	
Code H	Height (mm)	Length of modules (mm): 800, 1031 or 1200.
		1    2    3    4    5    6    7    8
<p>H MAX: 3128 MIN: 2850</p>	M5: 2517 FUTURA: 2508	
	M5: 914 FUTURA: 905	
	53	

<sup>(1)</sup> Note: length 800,1031 and 1170 mm for units with metallic panels are not possible.

**Table A1.3:** Module code E, F, G, H. Standard vertical modular units of M5 and FUTURA kit. Elevation.

**Standard modular door units of M5 and FUTURA kit. Elevation**



Code	Module height (mm)	Door height (mm)		Length (1 to 17) (mm)		Length (18 to 34) (mm)
		M5	FUTURA	M5	FUTURA	M5 and FUTURA
P-I	2159 to 2500					
P-J	2500 to 2850	2069	2060	899 or 999 or 1031	881 or 981 or 1031	1031 or 1200
P-K	2850 to 3128					
P-L	2850 to 3128	2517	2508			

**Table A1.4:** Module code P-I, P-J, P-K, P-L. Standard modular door units of M5 and FUTURA kit. Elevation.

**Standard modular double door units of M5 and FUTURA kit. Elevation**



Code	Module height (mm)	Door height (mm)		Length (mm)		Observations
		M5	FUTURA	M5	FUTURA	
P-DI	2159 to 2500					
P-DJ	2500 to 2850	2069	2060	1718 or 1918	1700 or 1900	----
P-DK	2850 to 3128					
P-DL	2850 to 3128	2517	2508			

**Table A1.5:** Module code P-DI, P-DJ, P-DK, P-DL. Standard modular double door units of M5 and FUTURA kit. Elevation.

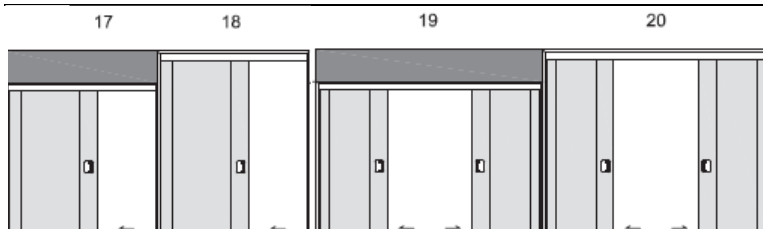
**Standard modular sliding door units of M5 and FUTURA kit. Elevation**



Code	Module height (mm)	Door height (mm)		Length (1 to 8) (mm)	Length (9 to 16) (mm)	Observations
		M5	FUTURA			
PCS-M	2159 to 2500					-----
PCS-N	2500 to 2850	2069	2060	2062	3093	
PCS-O	2850 to 3128					Modules 5, 6, 7, 8, 13, 14, 15, 16 do not exist for this codes
PCS-P	2850 to 3128	2517	2508			

**Table A1.6:** Module code PCS-M, PCS-N, PCS-O, PCS-P. Standard modular sliding door units of M5 and FUTURA kit. Elevation.

**Integrated sliding door standard modular units of M5 and FUTURA kit. Elevation**



Code	Module height (mm)	Door height (mm)		Length (17, 18) (mm)	Length (19, 20) (mm)	Observations
		M5	FUTURA			
PCI-M	2159 to 2500					Length of modules 18 and 19 up to 6000 mm
PCI-N	2500 to 2850	2069	2060	2062	3093	
PCI-O	2850 to 3128					Modules 18 and 19 do not exist for this codes
PCI-P	2850 to 3128	2517	2508			

**Table A1.7:** Module code PCI-M, PCI-N, PCI-O, PCI-P. Integrated sliding door standard modular units of M5 and FUTURA kit. Elevation.



**Standard modular units of M5 and FUTURA kit. Vertical cross-sections**

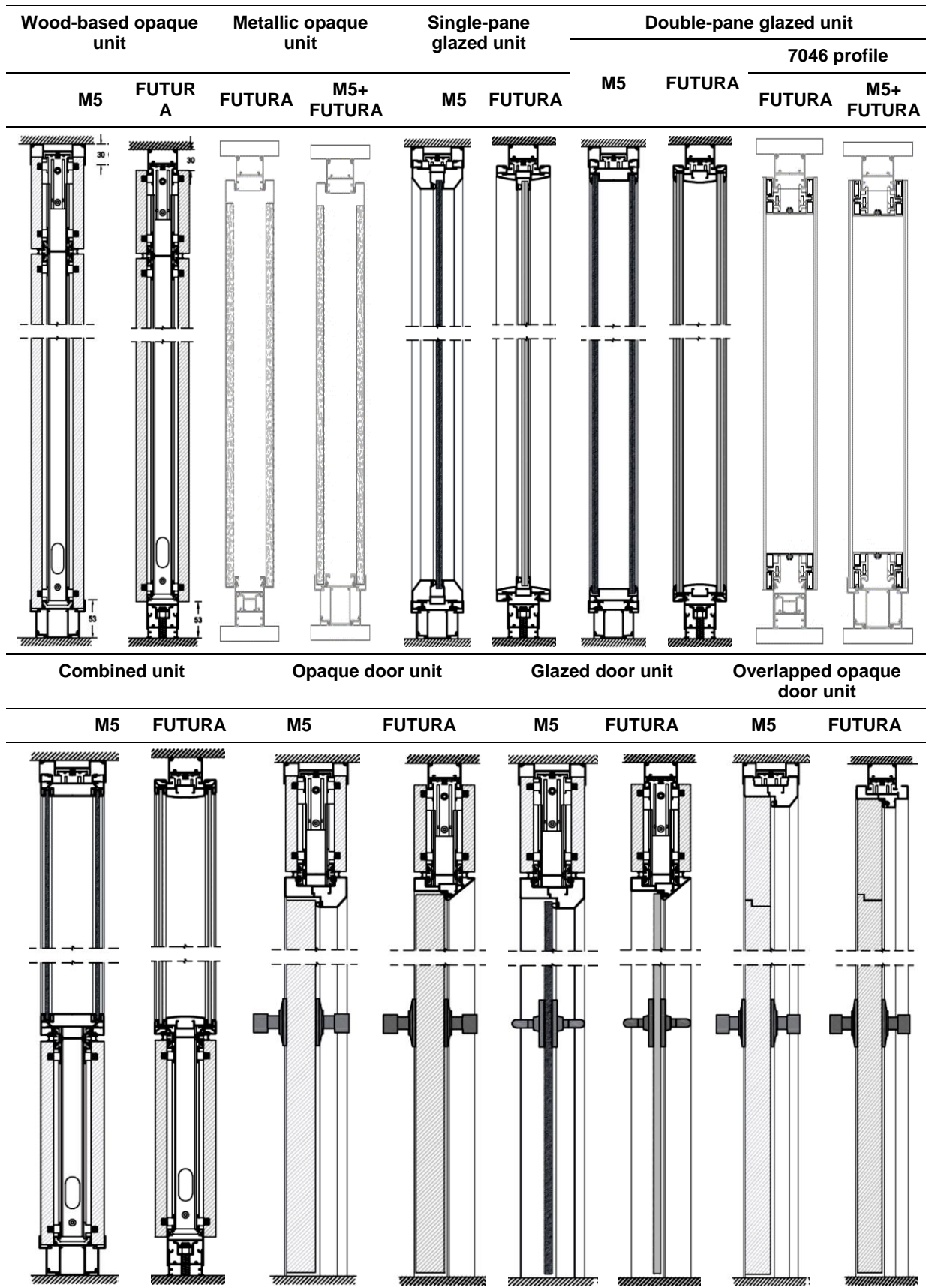
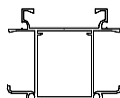

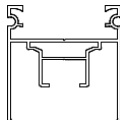
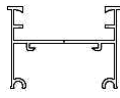
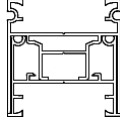

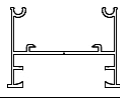
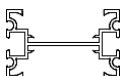
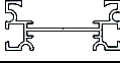
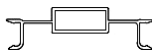

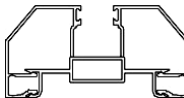



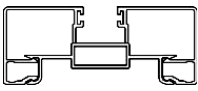

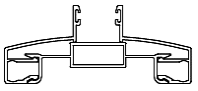

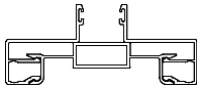
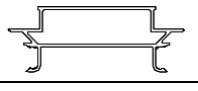

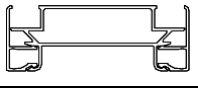
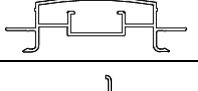

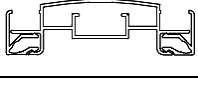

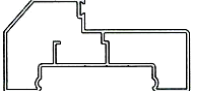
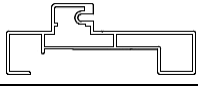


Figure A1.1: Standard modular units of M5 and FUTURA kit. Vertical cross-sections

## ANNEX 2: List of components

### Aluminium profiles

List of extruded aluminium profiles conforming to EN 755-9. Profiles are made of aluminium with anodised or lacquered coating except the upright and braces profiles, that are not coated. Aluminium chemical composition conforms with EN AW-6063 [EN AW-Al Mg0,7Si], according to EN 573-3. Tolerances on dimensions and form values for aluminium profiles are according to EN 755-9 and EN 12020-2.

Code	Section	Profile type / Specification	M5	FUTURA	Dimensions (mm)	Supplier
<b>Lower rail</b>						
5040		Inner central profile of lower rail.	X	----	65,0 x 53,0 x 1,3	1 2
5045		Outer profile of lower rail.	X	----	53,4 x 16,6 x 1,3	2
5044D T		Outer profile of 5046 lower rail. Used for levelling system which allows the adjustment of $\pm 17,0$ mm of height	----	X	50,0 x 50,6 x 1,3	2
5045D T		Inner profile of 5046 lower rail.	----	X	50,0 x 35,7 x 1,3	2
5046		Lower rail. Union of 5044DT+5045DT profiles.	----	X	50,0 x 51,8 x 1,3	----
<b>Upper rail</b>						
5039		Upper rail.	X	----	88,4 x 30,0 x 1,3	1 2
5045D T		Upper rail. (same profile used in 5046 lower rail).	----	X	50,0 x 35,7 x 1,3	2
<b>Upright and brace</b>						
5032		Upright and brace. Two exits.	X	X	50,0 x 30,0 x 1,3	1 2 3
<b>Wall or partition starter</b>						
5033		Wall or partition upright starter. One exit.	X	X	50,0 x 21,3 x 1,3	1
<b>Glass frame</b>						
5035D T		Inner central profile used in glass frames of 1 glass pane.	X	X	66,8 x 18,5 x 1,3	1 2
5037D T		Glazing bead of 5031 profile.	X	----	42,0 x 35,0 x 1,3	1
5031		Glass frame for 1 glass pane. Union of 5035DT+2x5037DT profiles.	X	----	85,0 x 35,0 x 1,3	----

Code	Section	Profile type / Specification	M5	FUTURA	Dimensions (mm)	Supplier
5137D T		Glazing bead of 5041 profile.	X	----	35,0 x 35,0 x 1,3	1
5041		Glass frame for 1 glass pane. Union of 5035DT+2x5137DT profiles.	X	----	85,0 x 35,0 x 1,3	----
7137D T		Glazing bead of 7031 profile.	----	X	34,5 x 35,0 x 1,3	1
7031		Glass frame for 1 glass pane. Union of 5035DT+2x7137DT profiles.	----	X	85,0 x 35,0 x 1,3	----
7037D T		Glazing bead of 7041 profile.	----	X	34,5 x 35,0 x 1,3	1
7041		Glass frame for 1 glass pane. Union of 5035DT+2x7037DT profiles.	----	X	85,0 x 35,0 x 1,3	----
5036D T		Inner central profile used in glass frames of 2 glasses panes.	X	----	80,0 x 30,0 x 1,3	1 2
5038D T		Glazing bead of 5036 profile.	X	----	30,0 x 14,5 x 1,3	1
5036		Glass frame for 2 glass panes. Union of 5036DT+2x5038DT profiles.	X	----	85,0 x 30,0 x 1,3	----
7036D T		Inner central profile used in glass frames of 2 glasses panes.	----	X	81,0 x 25,0 x 1,4	1
7038D T		Glazing bead of 7036 profile.	----	X	20,0 x 15,1 x 1,4	1
7036		Glass frame for 2 glass panes. Union of 7036DT+2x7038DT profiles.	----	X	85,0 x 25,0 x 1,4	----
7046		Glass frame for two glass panes	--	X	38,0 x 35,0 x 1,5	---
<b>Door frame</b>						
5034		Door frame.	X	----	85,0 x 41,8 x 1,3	1 2 3
7034		Door frame.	----	X	85,0 x 30,8 x 1,3	1
7134		Door frame.	----	X	85,0 x 30,8 x 1,3	1
7234		Door frame.	X	X	85,0 x 30,8 x 1,3	1

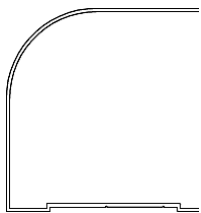
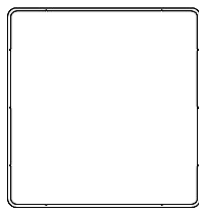
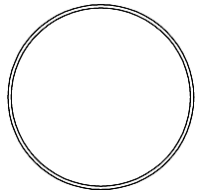

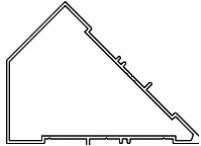
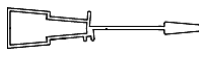
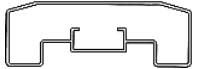
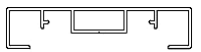
Code	Section	Profile type / Specification	M5	FUTURA	Dimensions (mm)	Supplier
<b>Angle connections</b>						
5029D T		90° connection.	X	X	90,0 x 90,0 x 1,3	1
5085		90° connection.	X	X	85,0 x 85,0 x 1,3	1
5050		90° to 270° angle tube connection. Used with 5049.	X	X	Ø 84,0 x 1,3	2
5049		Adaptor between 5050 and 5033 profiles.	X	X	Ø 85,0 x 23,0 x 1,3	2
5135		135° connection. 90° connection combining 2 profiles.	X	X	72,7 x 75,7 x 1,3	1
5110		10° connection.	----	X	88,7 x 17,4 x 1,5	1
<b>Topping profiles</b>						
5042		Topping profile.	X	----	85,0 x 30,0 x 1,3	1
7042		Topping profile.	----	X	85,0 x 18,0 x 1,3	1

Table A2.1: Aluminium profiles.

**Opaque panels (wood-based melamine faced board)**

Code	Panel type	Thickness (mm)	Specification	Supplier
-----	Wood-based melamine faced board (particleboard)	16 ± 0,3	EURODEKOR Flammex E1 P2 B/M1 made of: - EUROSPAN Flammex E1 P2 B/B1/M1 particleboard. Reaction to fire B-s1, d0 - Melamine covering (0,8 mm of thickness)	4
-----	Zinc coated steel panel with gypsum plasterboard	16 ± 0,3	Zinc coated steel DX51D+Z100 (thickness of epoxy-polyester paint 35 – 40 µm) Gypsum plasterboard. Type A of 12,5 mm.	---

Table A2.2: Opaque panels (wood-based melamine faced board).

## Assessed models of melamine coverings

Family	Finishings / Textures	
<b>Uni decors</b>	Different textures depending on model: SM / ST2 / ST3 / ST9 / ST15 / ST22	
<b>Woodgrain decors</b>	Different finishings depending on model: SM / ST2 / ST3 / ST9 / ST15 / ST22	

Family	Finishings / Textures
<b>Fantasy decors</b>	Different textures depending on model: ST2 / ST3 / ST15 / ST22

Table A2.3: Assessed models of melamine coverings.

### Edge coverings

Code	Type	Section (mm)	Material / Specification	Supplier
-----	PVC strap	19 x 0,45 ± 5%	Solid semi-rigid PVC	5
522	MA-6585 adhesive MA-6707 adhesive	-----	Ethylene vinyl acetate (EVA) copolymer hot melt adhesive.	6

Table A2.4: Edge coverings.

### Insulation

Code	Panel type	Thickness (mm)	Material / Specification	Supplier
432	Mineral wool	50 <sup>-2,5</sup> ; <sub>+7,5</sub>	Isover PV - Acustiver MW-EN 13162-T3 WS-MU1-AW0,70-AF5	20

Table A2.5: Insulation.

### Doors

Code	Type	Thickness (mm)	Material / Specification	Supplier
-----	Opaque doors	40 ± 0,3	TM EUROSPAN E1 P2 ES particleboard	4
914	Glazed doors	10	Thermally toughened or heat soaked thermally toughened (colourless float glass). EN 12150-2	23

Table A2.6: Doors.

### Adhesives

Code	Type	Thickness/Width (mm)	Material / Specification	Supplier
-----	Double sided tape for adhesion of glasses to 7046 profile	0,5 / 37 0,6 / 37	Acrylic foam VHB RP25 Acrylic foam MB ADH A7300 G	--
-----	Glue for adhesion the gypsum plasterboard to the back side of the metallic panel	--	White glue TN-534. Coverage 10 g/m <sup>2</sup> .	--

Table A2.7: Adhesives.











## Glass panes

Glass panes are not part of the kit. Ibermodul SA does not supply the glass panes and provides the specification to the customer by means of the ETA.

Code	Type	Thickness (mm)	Material / Specification	Supplier
1916	Float glass	5	EN 572-9 and EN 572-1	See Annex 4
1921 1920 1927	Laminated glass	3 + 3 5 + 5 6 + 6	EN 14449	See Annex 4






**Table A2.7:** Glass panes.

## Gaskets

Code	Type	Section	Material / Specification	Section (mm)	Supplier
-----	Wall F-gasket		Rigid PVC Used in 5032 wall starter	25,5 x 19,5	7
-----	F-gasket		Rigid PVC Used in 5032 angle connections	15,0 x 10,0	7
-----	Deformable U-gasket		Rigid PVC Used in 5032 wall starter	12,7 x 7,8	7
438	Foam sealing gasket	•	PVC foam cordon Used inside several aluminium profiles	Ø4,0 <sup>-0,3;+0,7</sup>	20
503 2292	Glass gasket for 5 and 3 + 3 mm glass panes		Flexible and rigid PVC. 7 mm glazing Used in double-pane glazed units	13,5 x 9,8	7
157 2179	Door and glass bubble gasket		PE + TPE Used in single-pane and M5 doors	8,0 x 7,0	7
669	Glass gasket for 5+5, 6+6 mm glass panes		TPE Used in double-pane glazed units	6,0 x 4,0	7
2117	Door gasket		Flexible and rigid PVC Used in FUTURA doors	15,0 x 11,0	7
3588	Butt-joint 2 panes gasket		PVC (transparent) Used as butt-joint panes union	12,3 x 10,5	7
3589	90° angle 2 panes gasket		PVC (transparent) Used as butt-joint panes union	17,8 x 17,8	7
30274	Butt-joint-90° angle 3 panes gasket		PVC (transparent) Used as butt-joint panes union	21,3 x 17,8	7
670	Butilyc adhesive gasket	—	Acrylic, acrylic foam, red PE Used as butt-joint panes union	0,8 x 6,0	8

**Table A2.8:** Gaskets.

## Fixing and joining components

Code	Type	Section	Material / Specification	Section (mm)	Supplier
321	Plug		Polypropylene Used to fix opaque panels to framework	28,1 x 15,0 x 19,4	9
322	Eccentric plug		Polypropylene Used in FUTURA series	Ø35 x 12,5	9
306	Tensors		Structural joint between uprights and upper profiles.	43,2 x 33,0 x 1,6	9
307	Regulator tensor		Structural joint between uprights and upper profiles.	98,0 x 30,0 x 1,5	9
1032	Connection bar		Structural joint between 5039 upper rails	55,0 x 30,0 x 1,5	9
49	Particleboard euro screw	-----	Zinc coated. DIN 7505	5,0 x 50,0	10
186	Particleboard euro screw	-----	Zinc coated. DIN 7505	4,0 x 30,0	10
185	Particleboard euro screw	-----	Bichromed coated. DIN 7505	4,0 x 20,0	10
210	Self-drilling screw	-----	Zinc coated. Pan head, DIN 7504 N	M3,5 x 10,0	11
204	Plastic anchor	-----	Nylon	6 x 30	12
1988	Socket head cap screw	-----	Hexagonal interior. Quality 8.8, zinc coated. DIN 912	M6,0 x 12,0	10
2173	Socket screw	-----	Hexagonal interior. Plain flat, DIN 913	M12,0 x 45,0	10
2175	Hexagonal nut	-----	DIN 934, zinc coated	M12	10
259	European cylinder	-----	Nickel. Centred 30+30 (exc = 15 mm)	Ø 60	13
1033	European cylinder	-----	Matt nickel. Amaestr. 2 sides (simple), centred 30+30, (exc=15 mm)	Ø 60	13
35	Handle/lever	-----	Silver, 3b00-70(cm), key and reten.	-----	13
32	Handle	-----	Silver ball, 3900-70(cm), key and reten.	-----	13
45	Handle	-----	Meroni silver, us26d, n°13, ent.70, tbn, new, key and reten.	-----	13
1149	Handle	-----	Meroni silver, us26d, n°13, ent.70, tbn, shape, key and reten.	-----	13
1151	Lock	-----	Aluminium 4030 50, F Red 20 mm, knock-key	-----	13
2261	Lock without door handle	-----	Arcos studio silver, 24.202	-----	14
2909	Lock for glazed unit, "u" handle	-----	Anodised silver key-key,	-----	15
2908	Hinge for glazed unit	-----	Anodised aluminium, flexa	-----	15
566	Hinge for glazed unit	-----	Silver, gliss de meroni (us26d)	-----	16
2882	Hinge for glazed unit	-----	Stainless steel. Silver satin-finish, gdk	-----	17
286	"u" handle + lock for glazed door	-----	Stainless (mab v-525)	-----	17
708	Door lever	-----	Silver aluminium, "I", 1987/554to-s, f1	-----	18



Code	Type	Section	Material / Specification	Section (mm)	Supplier
707	Door lever	-----	Silver aluminium,"u",1988/554to-s, f1	-----	18
2887	Door lever	-----	Stainless steel 304 "l" squared, erl	-----	19
2892	Door lever	-----	Stainless steel 304 "l", erl	-----	19

**Table A2.9:** Fixings and joining components.

### ANNEX 3: Solutions and construction details

#### M5 series

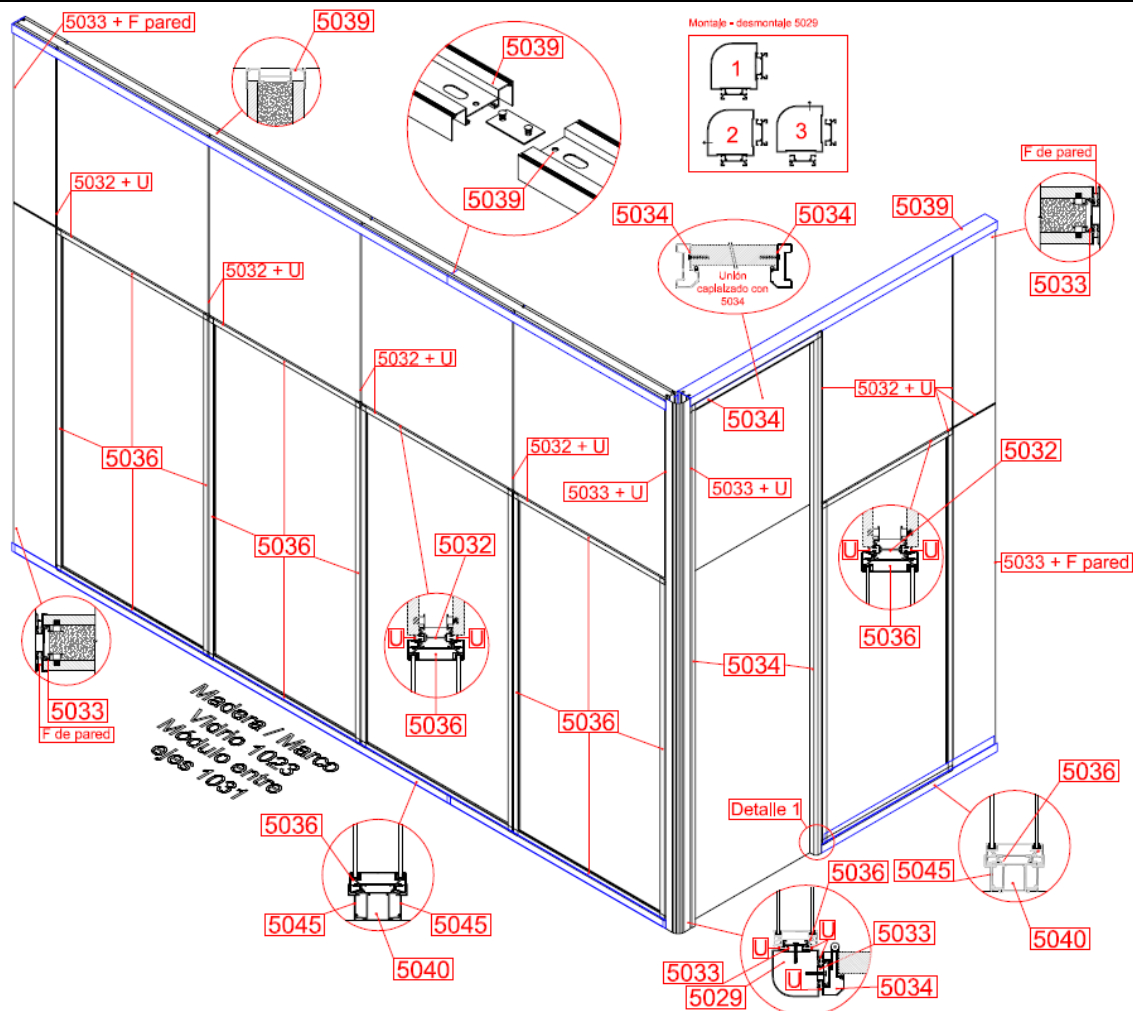


Figure A3.1: Example of M5 series.

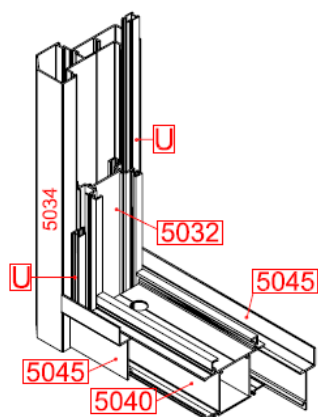
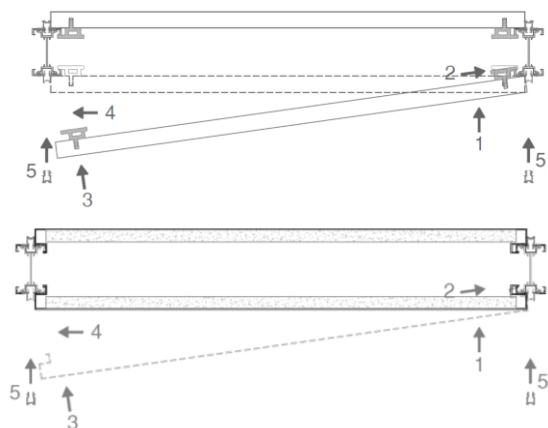


Figure A3.2: Installation of opaque panels (M5 or FUTURA). Figure A3.3: M5 Corner detail.

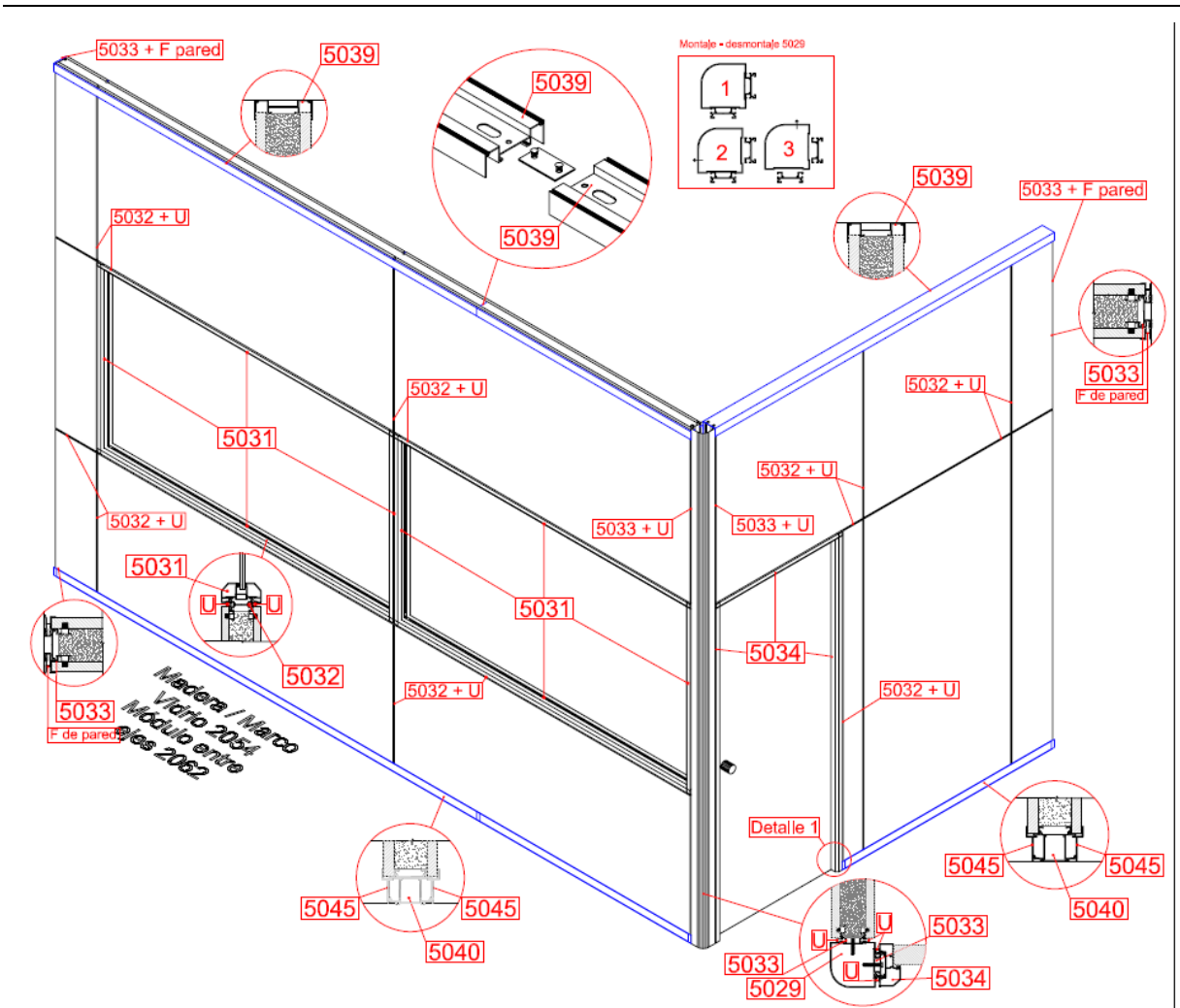


Figure A3.4: Example of M5 series.

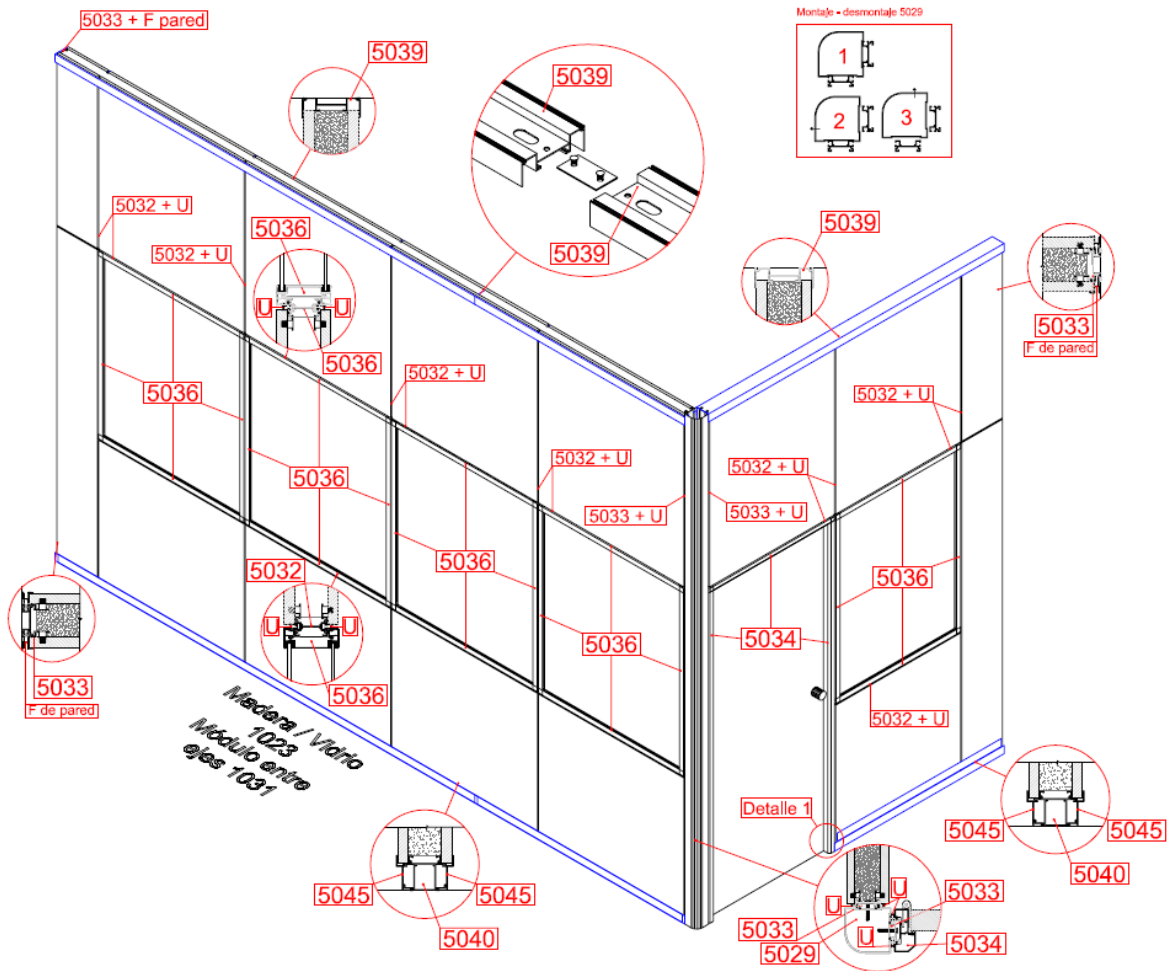


Figure A3.5: Example of M5 series.

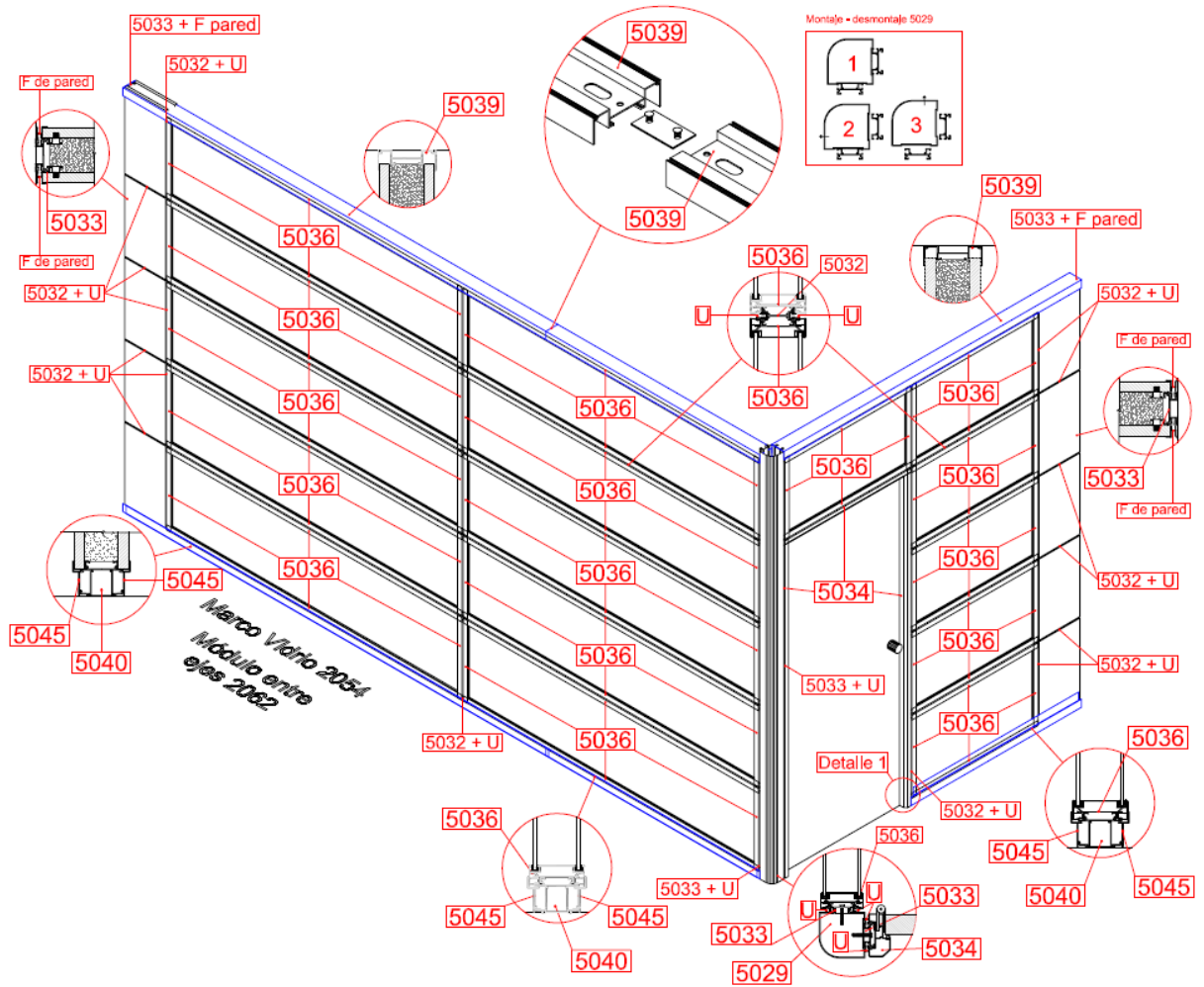


Figure A3.6: Example of M5 series.



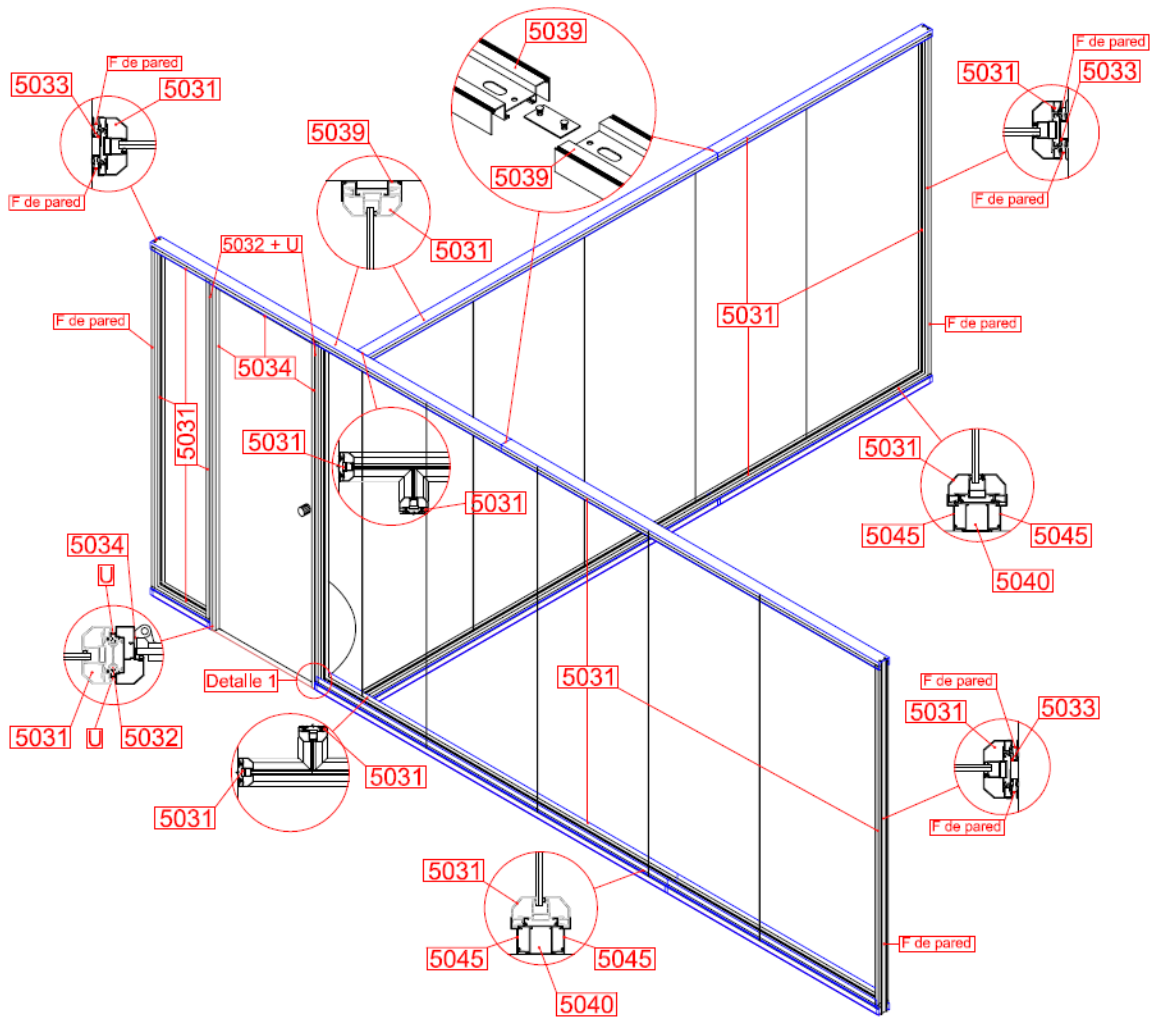
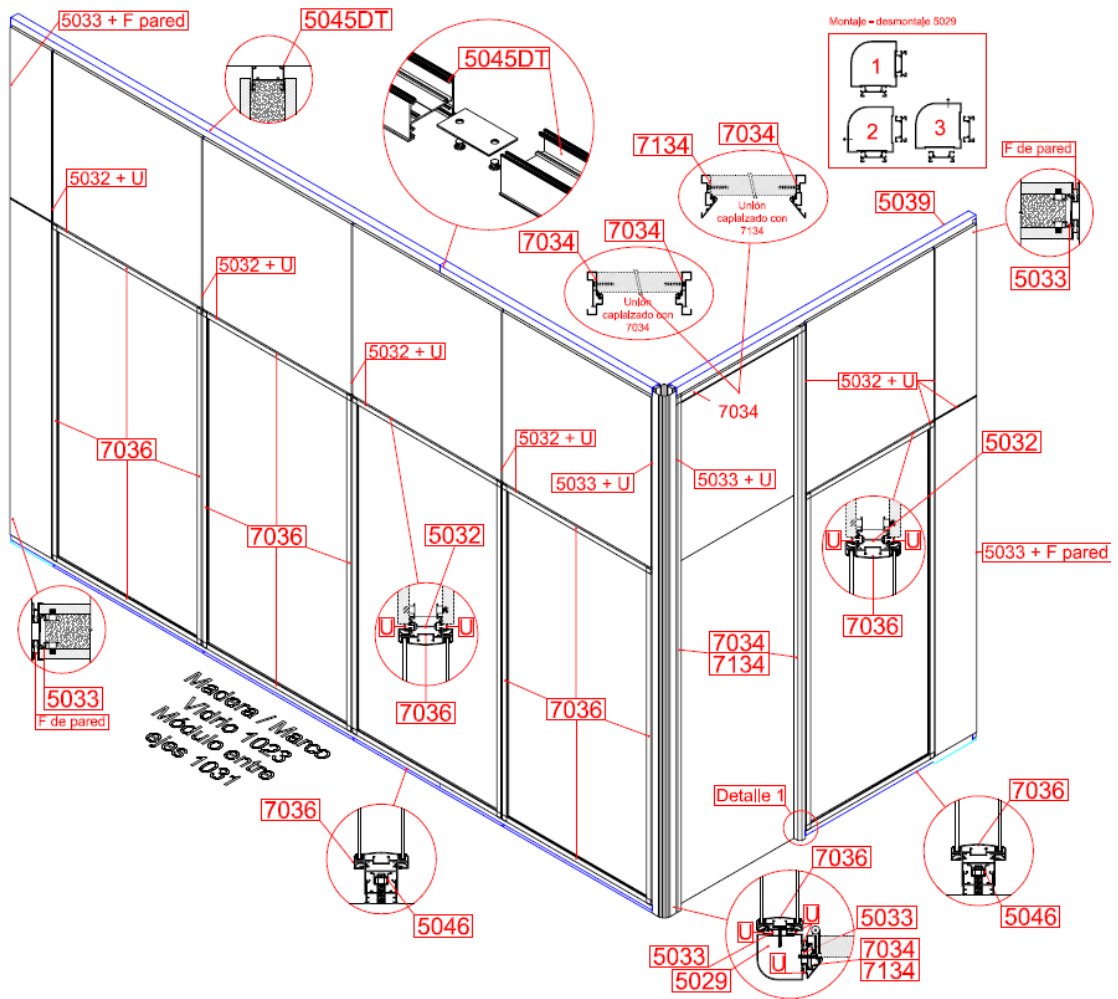


Figure A3.8: Example of M5 series.

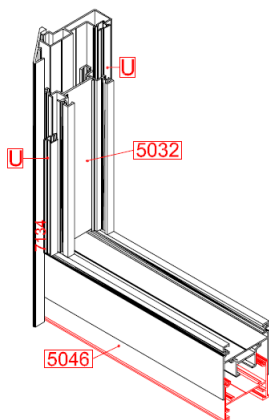




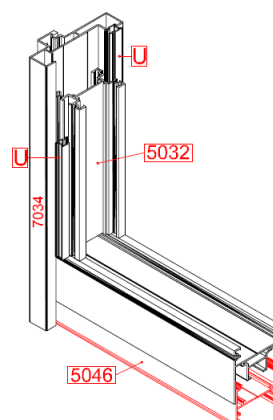
**FUTURA series**



**Figure A3.10:** Example of FUTURA series.



**Figure A3.11:** FUTURA corner detail 1.



**Figure A3.12:** FUTURA corner detail 2.

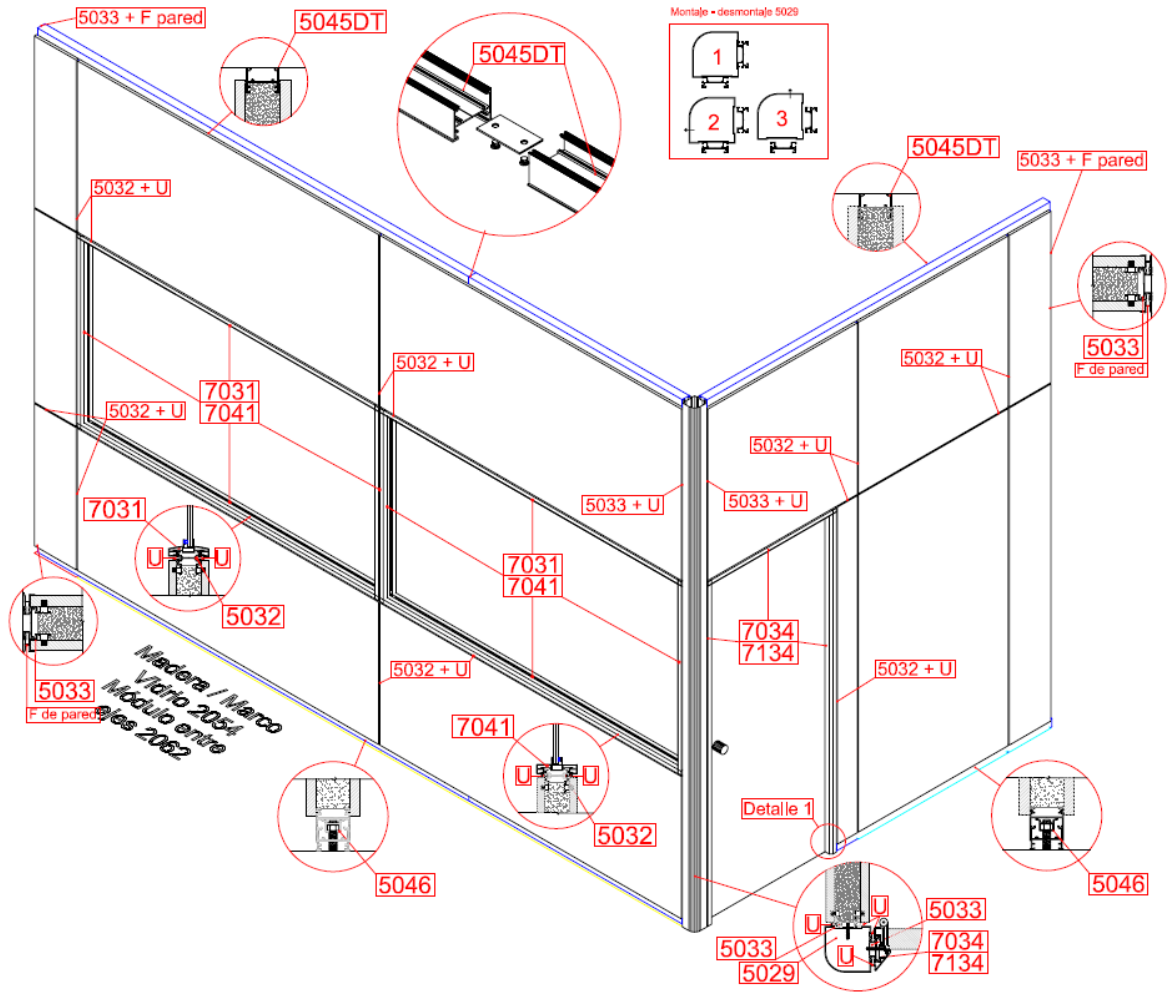


Figure A3.13: Example of FUTURA series.

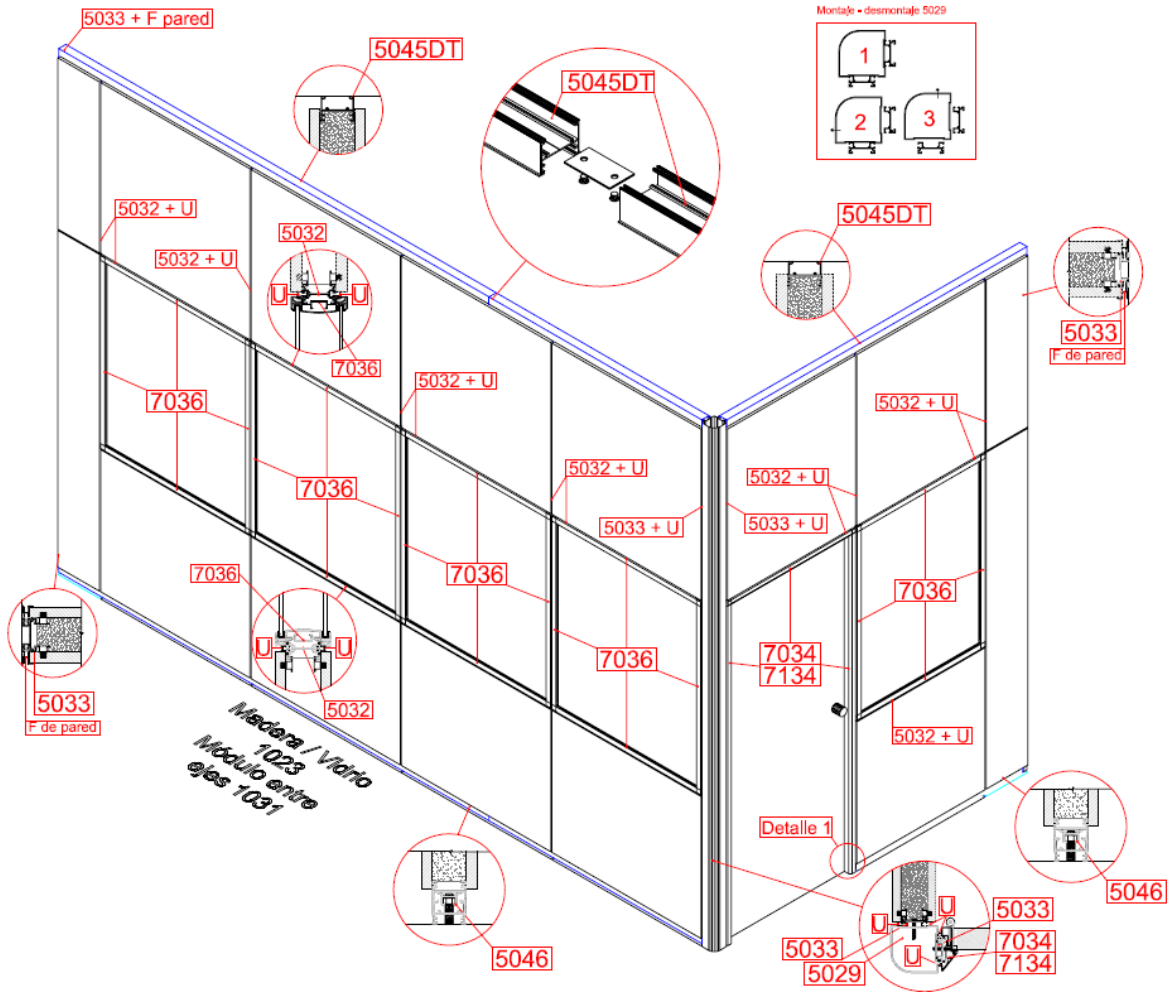
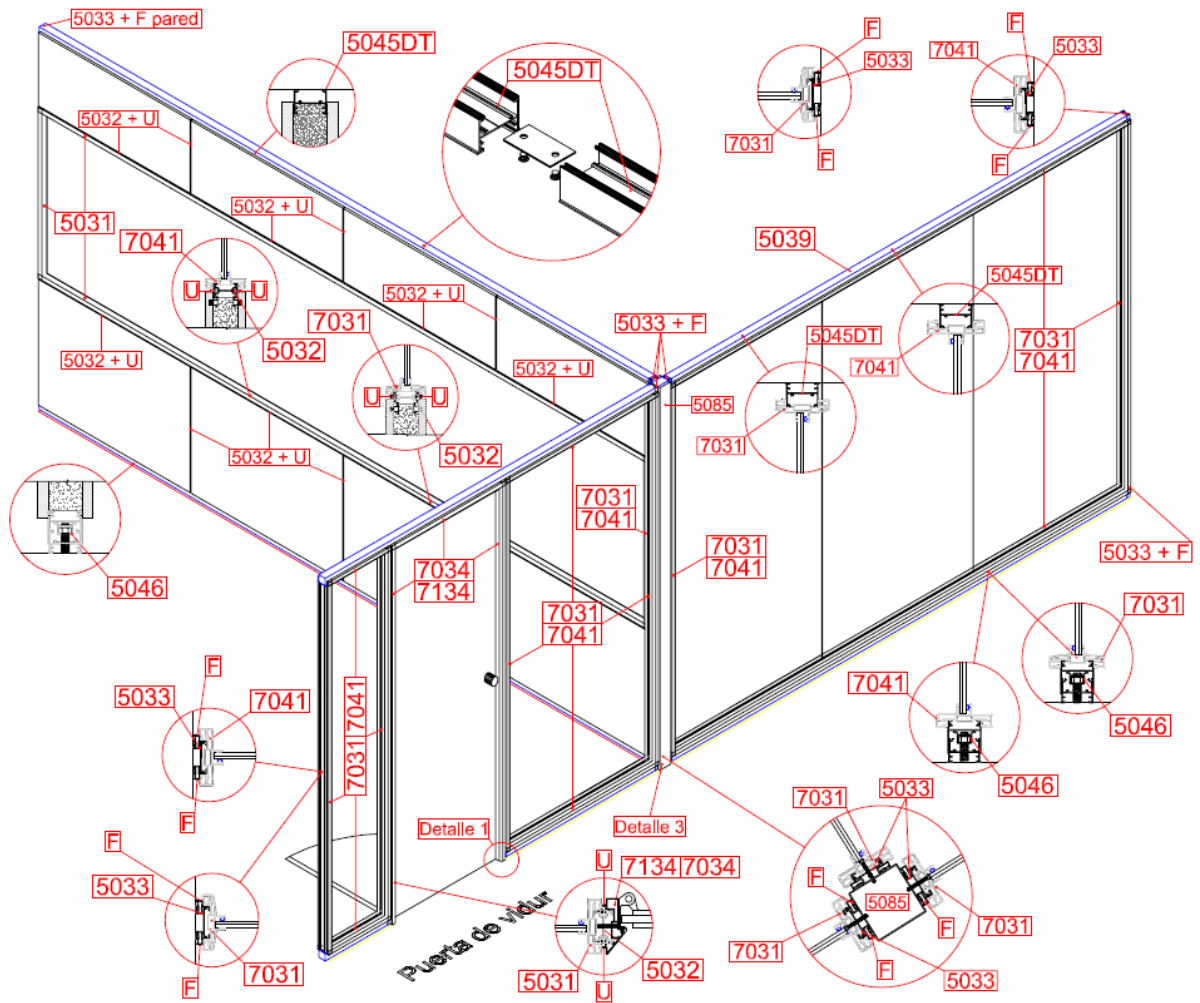


Figure A3.14: Example of FUTURA series.





**Figure A3.16:** Example of FUTURA series.

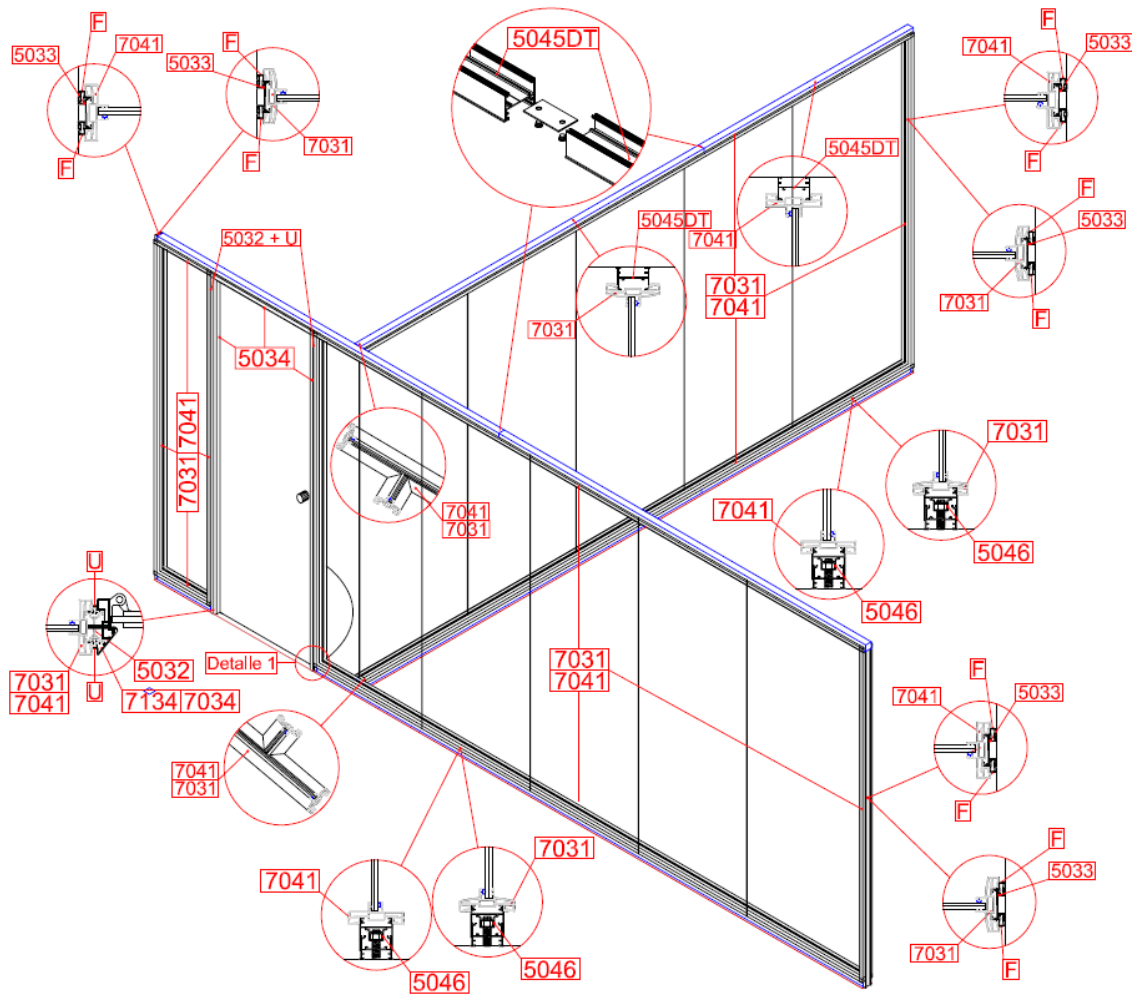


Figure A3.17: Example of FUTURA series.



**ANNEX 4: Assessed glass models**

Glass type (thickness)	Configuration and use		Assessed manufacturer and glass models	
	Framed panes	Butt-joint panes	Guardian	AGC Flat Glass Europe
Float glass (5 mm)	5 and 5	----	<ul style="list-style-type: none"> <li>- Clear Float</li> <li>- ExtraClear</li> <li>- ExtraClear plus</li> <li>- Float Color Green</li> <li>- Float Color Grey</li> <li>- Float Color Bronze</li> </ul>	<ul style="list-style-type: none"> <li>- Imagin Clear</li> <li>- Imagin Bronze</li> <li>- Imagin Yellow</li> <li>- Planibel Clear</li> <li>- Planibel Clearvision</li> <li>- Planibel sunmax</li> <li>- Planibel sunmax premium</li> <li>- Planibel Green</li> <li>- Planibel Grey</li> <li>- Planibel Bronze</li> </ul>
Laminated glass (3+3, 5+5, 6+6 mm)	3+3 and 3+3	5+5 6+6 5+5 and 5+5	<ul style="list-style-type: none"> <li>- LamiGlass</li> <li>- LamiGlass LamiDeco</li> </ul>	<ul style="list-style-type: none"> <li>- Stratobel Clear</li> <li>- Stratobel Top N</li> <li>- Stratobel Top N+</li> <li>- Stratobel Tri</li> <li>- Stratobel Top 1.0</li> <li>- Stratobel Energy N</li> <li>- Stratobel G</li> <li>- Stratobel Color standard</li> <li>- Stratobel Color rainbow</li> </ul>

**Table A4.1:** Assessed glass models.



## **ANNEX 5: General recommendations**

### **5.1 General**

It is the responsibility of the ETA holder to guarantee that the information about design and installation of the M5 and FUTURA kit is effectively communicated to the concerned people. Besides, all the data concerning the execution shall be clearly indicated on the packaging and/or on the enclosed instruction sheets using one or several illustrations.

The assessment given in this ETA is valid for the M5 and FUTURA kit with the components described in clause 1 with characteristics in accordance with clause 3. The requirements given in the ETAG 003 Edition 1998, Amended April 2012, chapter 7 are also relevant.

#### **5.1.2 Design**

The internal partition kit design shall comply with characteristics of the M5 and FUTURA kit as well as the national regulations. The kit is to be installed in indoor spaces with normal indoor temperature and moisture conditions (see clause 2).

#### **5.1.3 Installation**

The recognition and preparation of floor, ceiling and walls in the works, as well as the installation of the M5 and FUTURA kit with respect to the particularities in joints between partition and structure and admitted tolerances of the kit itself, which are described in the current version of the ETA Holder's Installation Manual, shall be carried out in compliance with:

- Chapter 7 of the ETAG 003 edition 1998, Amended April 2012
- National regulations in force, if any

The installation of the partitions shall be performed only by trained employees or by persons instructed by the manufacturer following the ETA holder's Installation Manual.

#### **5.1.4 Packaging, transport and storage**

The instructions of the manufacturer related to packaging, transport and storage of the components shall be observed. Special attention must be paid on protection against weather conditions which could produce damage and in the instructions of storage.

#### **5.1.5 Use, maintenance and repair**

According to ETA holder's maintenance manual.

For the maintenance operations of partitions assembled from M5 and FUTURA kit the holder of this European Technical Assessment recommends to follow the instructions attached to each particular delivery. The components in the kit shall be inspected and maintained in accordance with the maintenance instructions.