



European Technical Assessment **ETA 07/0071** of 29/05/2020

General Part

Technical Assessment Body issuing the ETA	Eurofins Expert Services Oy
Trade name of the construction product	PAROC eXtra, PAROC Ultra, PAROC UNS 37, PAROC Solid and PAROC Sonus partition kits
Product family to which the construction product belongs	Non-load bearing partition kits for dry rooms
Manufacturer	Paroc Group Energiakuja 3, P.O. Box 240 FI-00181 Helsinki
Manufacturing plants	Annex N
This European Technical Assessment contains	12 pages including 2 Annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	EAD 210005-00-0505, Internal partition kits for use as non-loadbearing walls
This version replaces	ETA 07/0071 issued on 10/05/2017

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es) referred to above). However, partial reproduction may be made, with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.

Specific Part

1 Technical description of the product

The non-load bearing partition kits with PAROC eXtra, PAROC Ultra, PAROC UNS 37, PAROC Solid and PAROC Sonus stone wool insulation comprises galvanised steel or timber studs with one, two or three layer gypsum board surfaces on both sides and thermal insulation inside the walls. The gypsum boards are fastened onto steel or timber studs with defined fastenings. The tightening of the joints of the partitions is made by gypsum plaster.

The tightening between the partition and ceiling and floor is done on site according to the installation instructions of the gypsum board manufacturer either with acrylic sealant (acoustic walls) or with mineral wool of reaction to fire class A1 or with non-combustible sealant. Sealing products are not part of this ETA. The tightening of possible gaps like electrical installations shall be done to secure the air tightness of the gap and in case of fire walls also with non-combustible materials.

The distance between the studs is maximum 600 mm. The cross section dimensions of the steel studs are 66 – 70 mm or 95 – 100 mm and timber studs 66 – 70 mm.

The materials are presented in Annex 1 and different types with size limitations of the partition kits are presented in Annex 2.

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

2.1 Intended uses

The PAROC eXtra, PAROC Ultra, PAROC UNS 37, PAROC Solid or PAROC Sonus partition kits are intended to be used as non-load bearing partitions in dry spaces especially where the partitions have fire resistance and/or sound insulation requirements.

The partition kit is fastened to the load bearing structure with airtight sealing and according to the manufacturer's instructions. The fastening devices are not part of this ETA.

The provisions made in this ETA are based on an assumed intended working life for a partition kit of 25 years provided that the kit is subjected to appropriate use and maintenance. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the approval body, but are to be used as a means for selecting the appropriate 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

Table 1. Basic requirements for construction works and essential characteristics

BASIC REQUIREMENT AND ESSENTIAL CHARACTERISTICS	PERFORMANCE
BWR 2. Safety in case of fire	
Reaction to fire	Gypsum boards conforming to EN 520 are classified as Euroclass A2-s1,d0
	Thermal insulation material is classified to Euroclass A1
	Steel profiles are classified to Euroclass A1
	Timber studs are classified to Euroclass F
Resistance to fire	EI 30, EI 60 or as EI 90 depending on the partition construction type (Annex 2)
BWR 3. Hygiene, health and the environment	
Content, emission and/or release of dangerous substances	No performance assessed
Water vapour permeability	No performance assessed
BWR 4. Safety and accessibility in use	
Sill height	Not relevant
Resistance to damage and functional failure from horizontal loads	All partition types: Use category I
Resistance to damage and functional failure from eccentric vertical loads	No performance assessed
Resistance to horizontal linear static loads	No performance assessed
Resistance to functional failure from point loads parallel or perpendicular to the surface	No performance assessed
Rigidity of partitions to be used as a substrate for ceramic tiling	No performance assessed
Safety against personal injury by contact	When properly installed, the wall system does not contain sharp or abrasive components liable to cause personal injury.
Resistance to deterioration caused by: - physical agents - chemical agents - biological agents	No performance assessed The system is used in dry conditions. The wall will be levelled and painted or wall papered and will thus not be in contact with cleaning agents. There are no provisions for biological agents to act in the materials in dry conditions.
BWR 5. Protection against noise	
Airborne sound insulation	R _w (100 - 3150 Hz) between 38 – 65 dB depending on the partition construction type (Annex 2) or No performance assessed
Sound absorption	No performance assessed
BWR 6. Energy economy and heat retention	
Thermal resistance	No performance assessed
Thermal inertia	No performance assessed

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

According to the Decision 1998/0213/EC of the European Commission, the system of assessment and verification of constancy of performance is System 3.

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD.

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Eurofins Expert Services Oy.

Issued in Espoo on May 29, 2020
by Eurofins Expert Services Oy



Tiina Tirkkonen
Senior Expert



Tiina Ala-Outinen
Product Development Manager

ANNEX 1
MATERIALS AND COMPONENTS

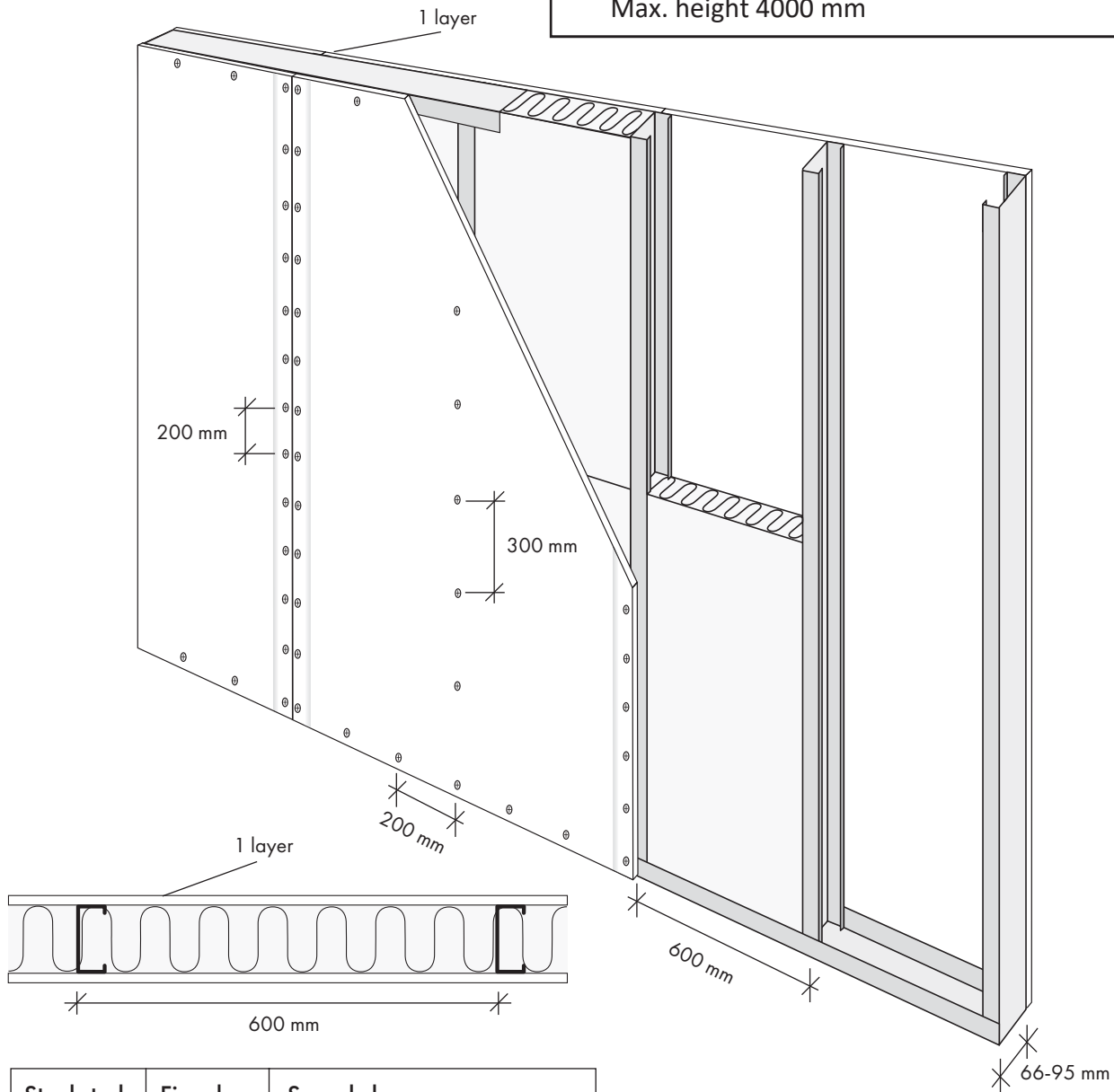
The following table contains materials and components used in the manufacturing of the kit.

Partition walls 2, 3, 4 and 5 presented in Annex 2 meet the fire resistance requirements EI 90, partition walls 1 and 6 meet the fire resistance requirements of EI 60 and partition wall 7 the fire resistance requirements of EI 30 according to classification standard EN 13501-2:2016 when following is taken into account. The height of the wall may be increased to 4 m for structures presented in Annex 2.

MATERIAL OR COMPONENT FUNCTION	MATERIAL OR COMPONENT TYPE AND SPECIFICATION
Wooden studs	Solid timber or LVL (Laminated Veneer Lumber). See requirements for Partition walls 6 and 7 presented in Annex 2.
Steel studs	Thickness of steel 0,46 mm. Weight of zinc is 275 g/m ² , which is equal to 20 µm. The standard EN 14195 for metal framing for gypsum board systems define the steel acc. EN 10326 or 10327. See requirements for Partition walls 1, 2, 3, 4, 5 and 7 presented in Annex 1.
Gypsum boards	Gypsum board type A according to standard EN 520 and the weight of the boards is minimum 8,2 kg/m ² .
Joint sealing material	Gypsum based plaster 0,2 - 0,3 kg/m ³
Timber batten or steel strip	Timber batten 15 mm x 95 mm or 100 mm wide steel strip shall be installed behind the horizontal joint of the gypsum boards.
Thermal insulation	Nominal density of stone wool insulation PAROC eXtra is 28 kg/m ³ , PAROC Ultra 31 kg/m ³ , PAROC UNS 37 and PAROC Solid 26 kg/m ³ and PAROC Sonus 20 kg/m ³ . Insulation is installed to fulfil the cavity totally and, if needed, slabs can be supported in place with screws 4.2 x 38 mm, 2 pcs/slab, on the plain side of the steel studs and nails 2.1 x 50 mm, 3 pcs/slab, on both sides of the timber studs.
Acrylic sealant	According to the recommendations of the gypsum board producers.

Partition 1

- Ceiling and floor profile 66-100 mm
 - Steel studs 66-95 mm, c 600 mm
 - 1 layer of gypsum board 12,5 mm on each side
 - PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 66-100 mm
 - Gypsum screws L = 25 mm
- Max. height 4000 mm



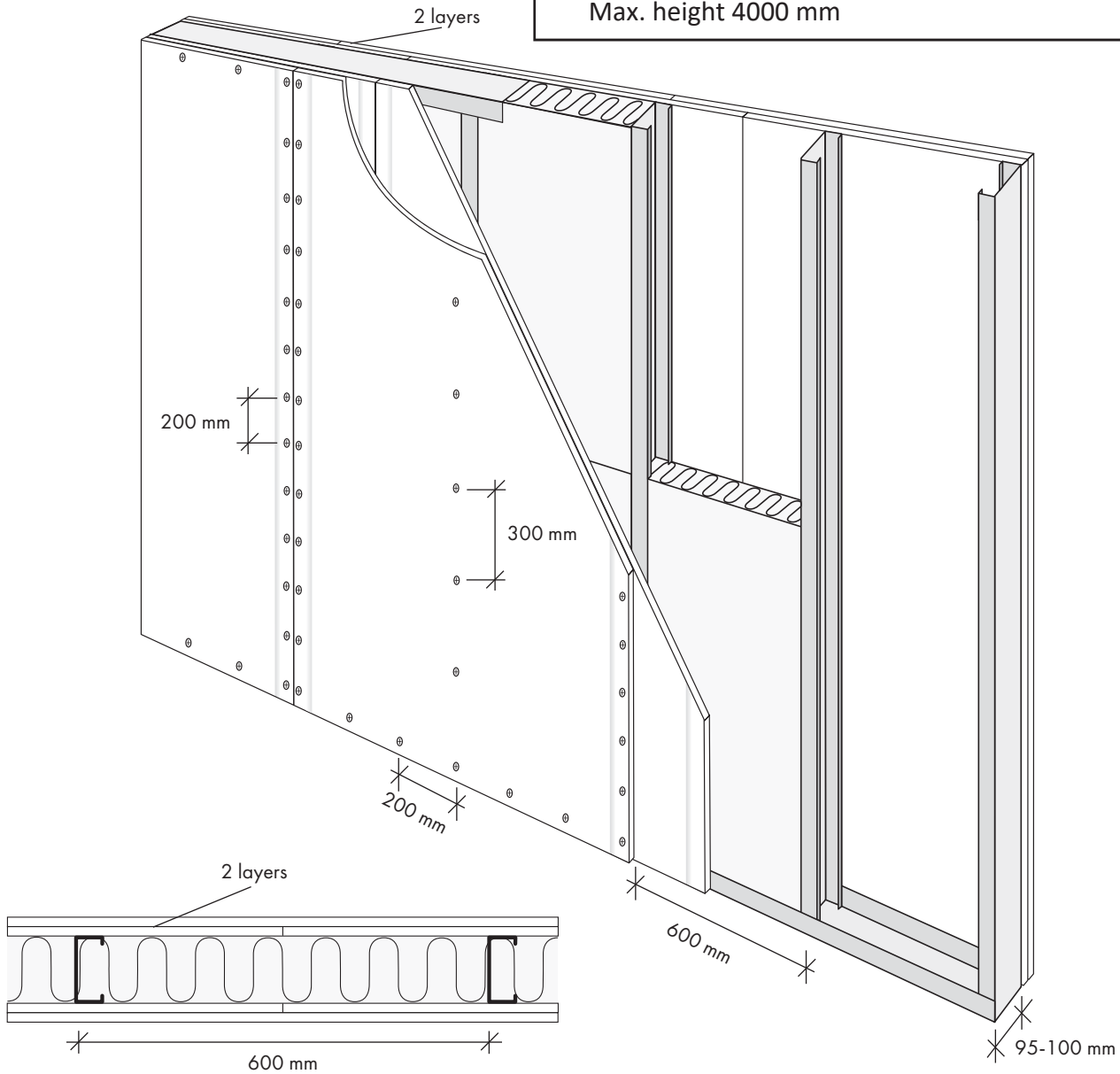
Steel studs	Fire class	Sound class
95 mm	EI 60	$R_w = 45 \text{ dB}$ $R_w + C_{50-3150} = 40 \text{ dB}$ $R'_w = 36 \text{ dB}$ $R'_w + C_{50-3150} = 32 \text{ dB}$
66 mm	EI 60	$R_w = 40 \text{ dB}$ $R_w + C = 37 \text{ dB}$

Total wall thickness: 91-120 mm



Partition 2

- Ceiling and floor profile 95-100 mm
 - Steel studs 95-100 mm, c 600 mm
 - 2 layers of gypsum board 12,5 mm on each side
 - PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 95-100 mm
 - Gypsum screws L = 35 mm
- Max. height 4000 mm



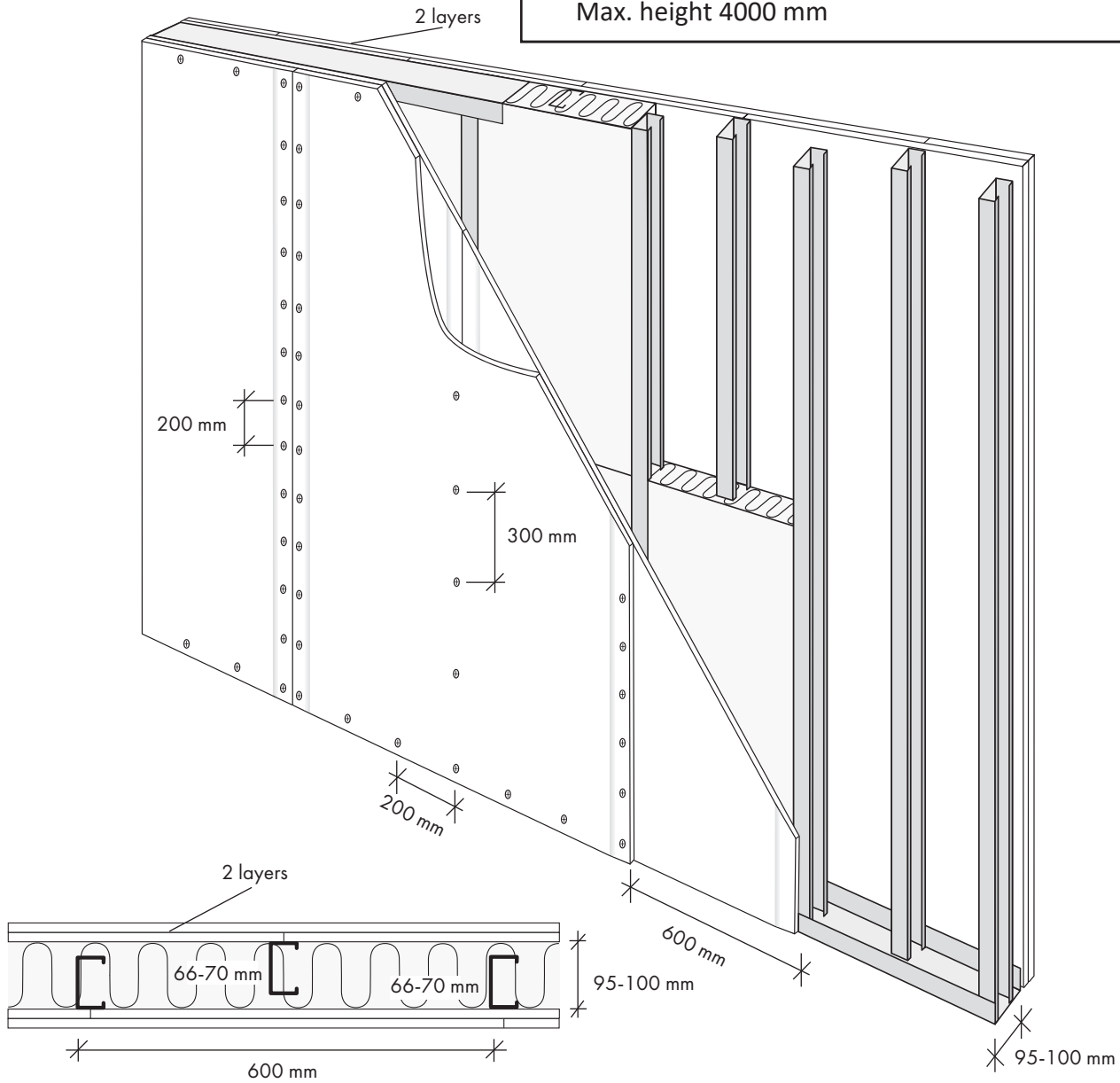
Fire class	Sound class
EI 90	$R_w = 55 \text{ dB}$ $R_w + C_{50-3150} = 48 \text{ dB}$ $R'_w = 44 \text{ dB}$ $R'_w + C_{50-3150} = 40 \text{ dB}$

Total wall thickness: 145-150 mm



Partition 3

- Ceiling and floor profile 95-100 mm
 - Steel studs zig zag 66-70 mm, c 600 mm
 - 2 layers of gypsum board 12,5 mm on each side
 - PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 95-100 mm
 - Gypsum screws L = 35 mm
- Max. height 4000 mm



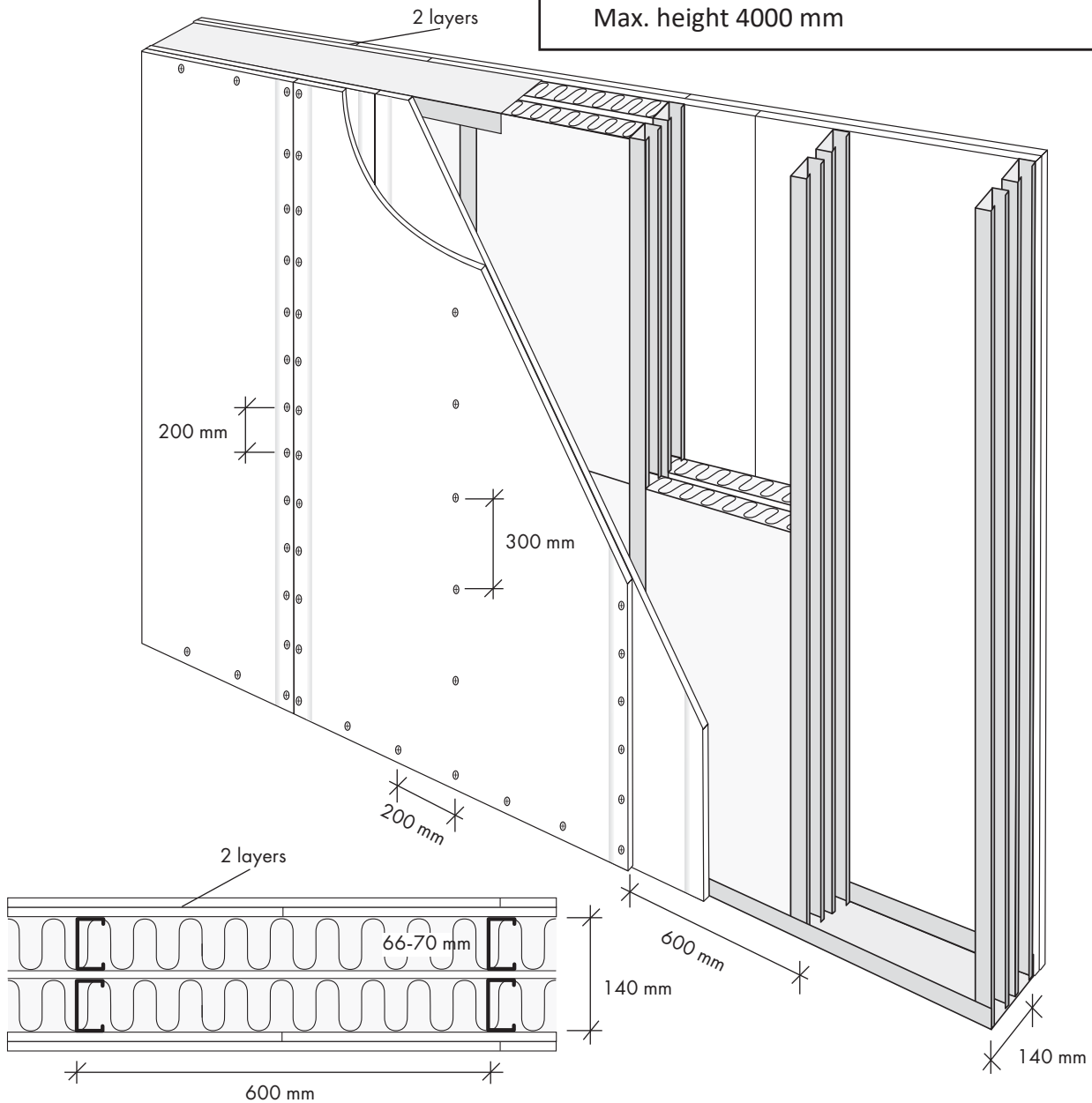
Fire class	Sound class
EI 90	$R_w = 58 \text{ dB}$ $R_w + C_{50-3150} = 51 \text{ dB}$ $R'_w = 48 \text{ dB}$ $R'_w + C_{50-3150} = 44 \text{ dB}$

Total wall thickness: 145-150 mm



Partition 4

- Ceiling and floor profile 140-150 mm
 - Steel studs 2 x 66-70 mm with airgap
 - 2 layers of gypsum board 12,5 mm on each side
 - PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 2 x 66-70 mm
 - Gypsum screws L = 35 mm
- Max. height 4000 mm



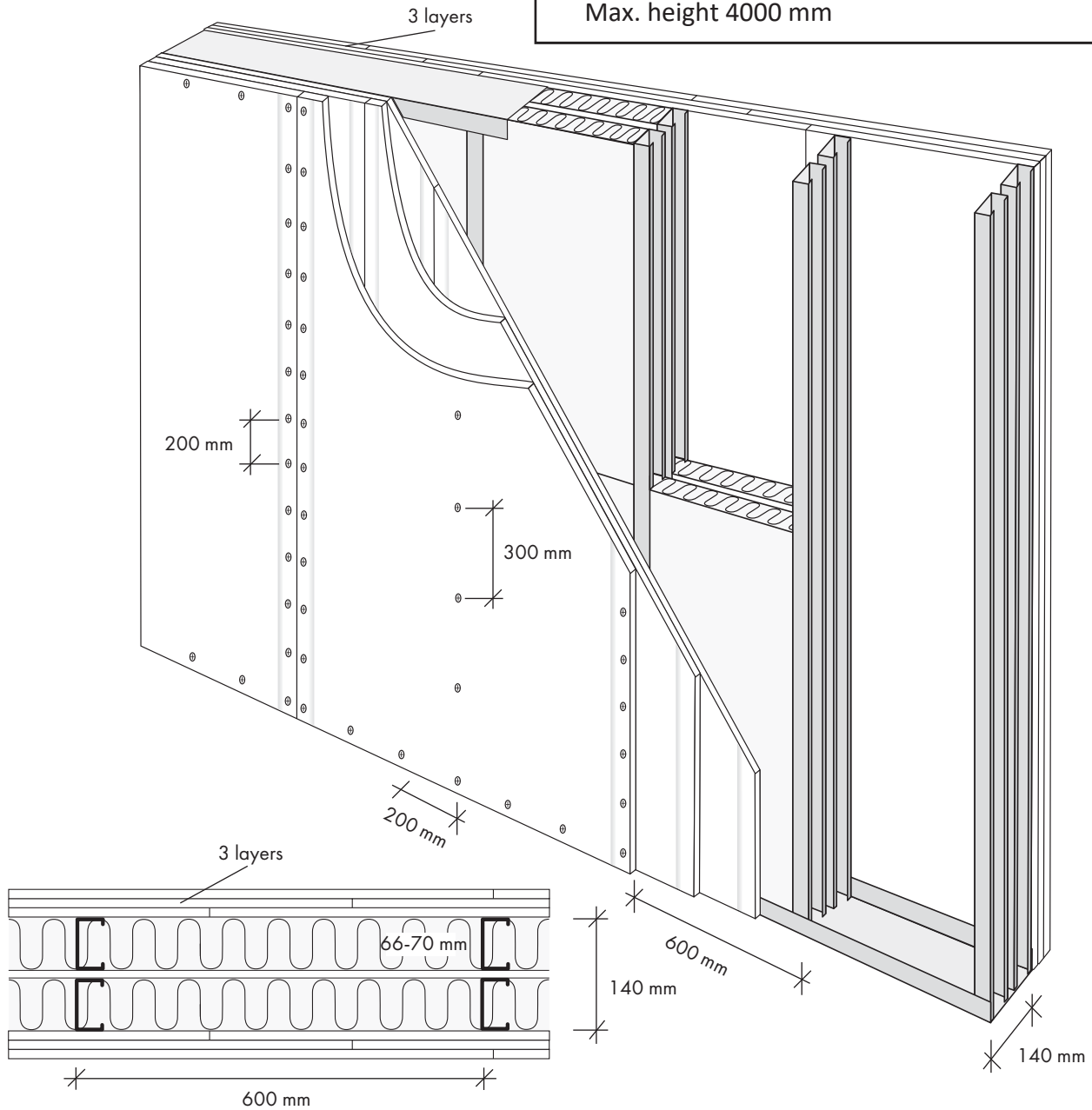
Total wall thickness: 190-200 mm

Fire class	Sound class
EI 90	$R_w = 63 \text{ dB}$ $R_w + C_{50-3150} = 56 \text{ dB}$ $R'_w = 56 \text{ dB}$ $R'_w + C_{50-3150} = 52 \text{ dB}$



Partition 5

- Ceiling and floor profile 140-150 mm
- Steel studs 2 x 66-70 mm with airgap
- 3 layers of gypsum board 12,5 mm on each side
- PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 2 x 66-70 mm
- Gypsum screws L = 45 mm
- Max. height 4000 mm



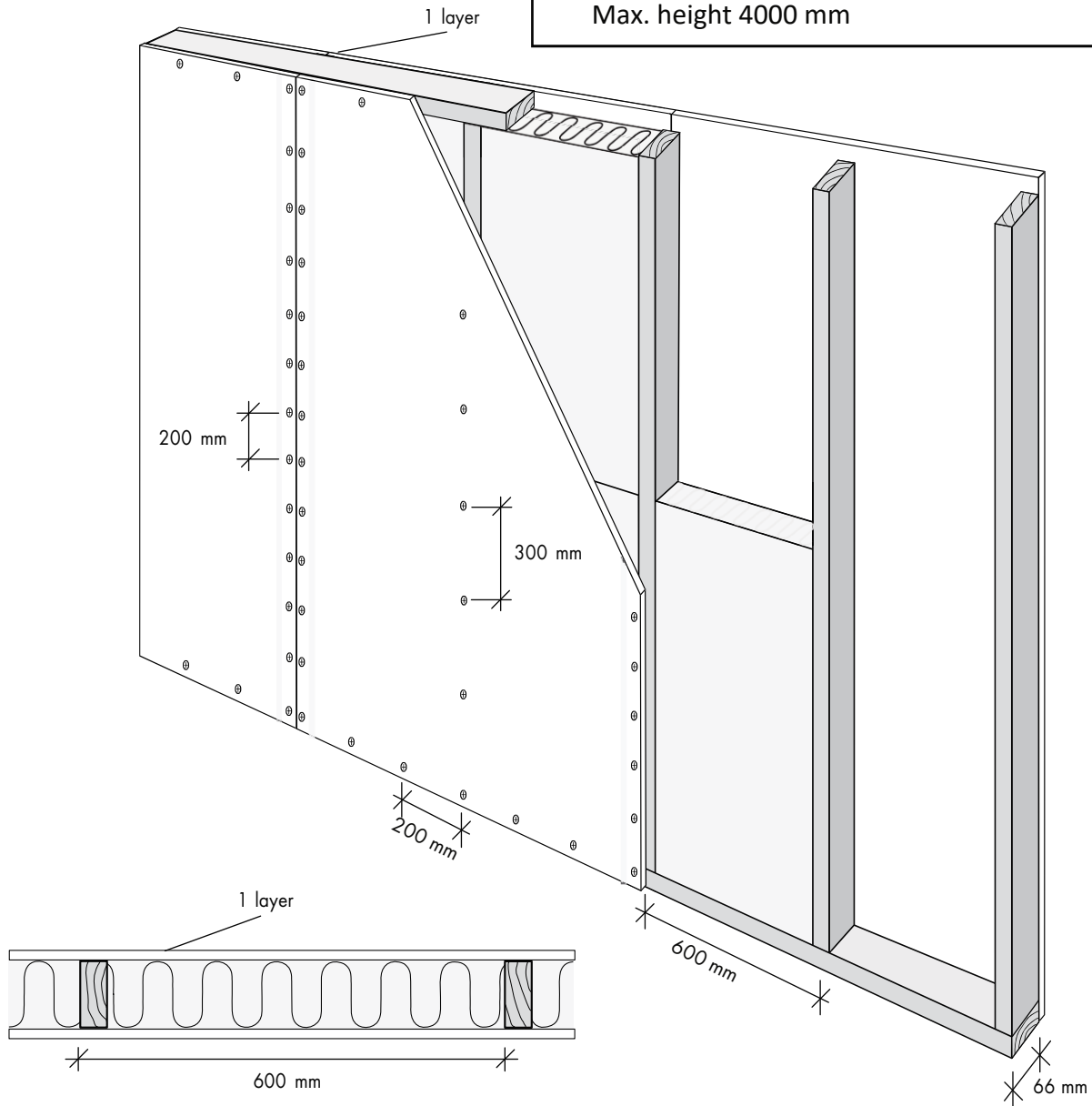
Total wall thickness: 215-225 mm

Fire class	Sound class
EI 90	$R_w = 65 \text{ dB}$ $R_w + C_{50-3150} = 61 \text{ dB}$ $R'_w = 60 \text{ dB}$ $R'_w + C_{50-3150} = 56 \text{ dB}$



Partition 6

- Ceiling and floor profile 66 mm
 - Wooden studs 66 mm, c 600 mm
 - 1 layer of gypsum board 12,5 mm on each side
 - PAROC UNS 37 / PAROC Solid / PAROC eXtra or PAROC Ultra 66 mm
 - Gypsum screws L = 3,5 x 35 mm
- Max. height 4000 mm



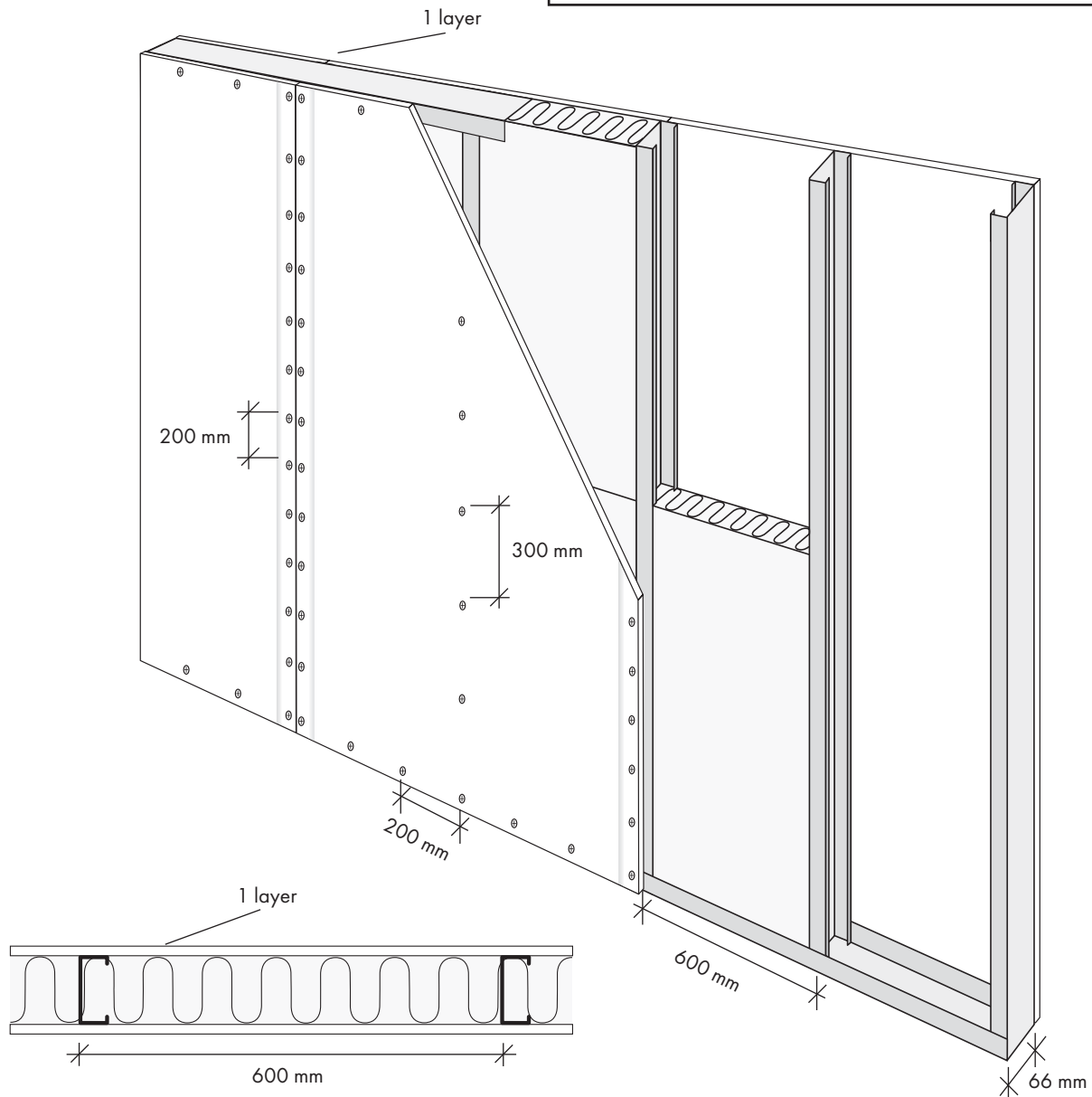
Fire class	Sound class
EI 60	$R_w = 40 \text{ dB}$ $R_w + C = 37 \text{ dB}$

Total wall thickness: 91 mm



Partition 7

- Ceiling and floor profile 66 mm
- Steel or wooden studs 66 mm, c 600 mm
- 1 layer of gypsum board 12,5 mm on each side
- PAROC Sonus 66 mm
- Gypsum screws L = 25 mm
- Max. height 3000 mm



Fire class	Sound class
EI 30	$R_w = 38 \text{ dB (wood), } 40 \text{ dB (steel)}$ $R_w + C = 34 \text{ dB (wood), } 37 \text{ dB (steel)}$

Total wall thickness: 91 mm

