

Solidtex

with 
HIGH-DENSITY CRYSTALLISATION
TECHNOLOGY

Solidtex the board that
breaks the rules of
building



Solidtex

with  **HDC**
HIGH-DENSITY CRYSTALLISATION
TECHNOLOGY

JOIN THE SOLIDTEX REVOLUTION.

Thanks to the exclusive High-density Crystallisation (HDC) technology, developed by Etex Building Performance, **the new Solidtex drywall system** challenges the traditional masonry and drywall systems with a unique solidity and resistance performance.

+ EXTRAORDINARY

Exceptional and
unprecedented



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+ INNOVATION

Pioneers of innovative solutions



SOLIDTEX: SOLIDITY IN PERFORMANCE.

Innovation in Etex Building Performance is an activity pursued with conviction and challenging objectives. Our latest innovation is the Solidtex board, a breakthrough in drywall solutions.

We offer you **the solution.** Solidtex is a multipurpose plasterboard that ensures the highest performance for the most demanding projects.

	HOW	WHAT
Technology and process	Increase of core density EN 520 compliant Evolution in the production process 	>1200 kg/m ³ D E F H1 R Type Patent
Sustainability	Recyclability Recycled content Total VOC Emissions	100% >35%* < 5 ug/m ³
Mechanical strength	Extraordinary resistance to suspended loads Partition solidity: higher with less metal frame Burglar resistance	Twice common drywall systems 30-50% higher than standard partitions RC2 with only 3 boards
Acoustics	Excellent insulation between residential units	R _w =76 dB
Installation	Workability and finishing Versatile and simplicity of systems	★★★★★ ★★★★★
Uniqueness	Studs at 1200 mm spacing, screws at 600 mm Versatile and simple systems	Patent ★★★★★
Moisture resistance	Reduced water consumption	Suitable for all environments
Fire resistance	SANS 10400 Part T	Systems up to EI 120 min

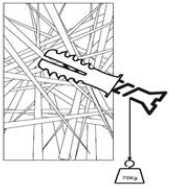
* Made in Corfinio, Italy.

The outstanding characteristics of Solidtex lead us to request two patents; one related to the production process and the other one to the system configuration with metal studs at 1200 mm spacing.

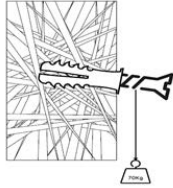
Solidtex systems overcome traditional masonry walls and achieve the highest performances among drywall systems. Solidtex allows the possibility to hang loads until now unimaginable for drywall systems, grants solidity of partitions indistinguishable from masonry walls, and excellent acoustic insulation.

The innovative technology at the base of Solidtex board combines the ease of working and finishing quality typical of gypsum plasterboard with mechanical performance so far attributed exclusively to the masonry.

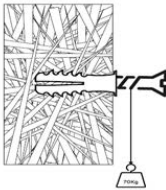
Solidtex has been conceived in order to meet the needs of architects, installers and end-users.



STANDARD



HIGH-DENSITY



Solidtex



ULTRA HIGH-DENSITY
30% - 50% MORE
GYPSUM/m³

TECHNOLOGY AND PROCESS

Solidtex is a plasterboard 12.5 mm thick, with tapered edges, produced with HDC (High-density Crystallisation) technology, composed of a high-density gypsum core (>1200 kg/m³), treated for high moisture resistance, reinforced with glass fibres, encased in a special paper liner.

Solidtex is compliant to EN 520, type D E F H1 I R.

- **D** Controlled density >800 kg/m³
 - Solidtex >1200 kg/m³ over 50% higher than the limit value of class D
 - Enhanced resistance to suspended load and durability of the wall
- **E** Suitable to be used as sheathing board in external walls, not permanently exposed to external weather conditions
- **F** Improved core adhesion at high temperature
 - Suitable for applications with excellent fire resistance performance
- **H1** Reduced water absorption, the highest class according to EN 520
 - Suitable for all environments — even with high humidity
- **I** High surface hardness
 - Enhanced durability and impact resistance
- **R** Greater mechanical resistance
 - Increased by over 25% compared to the limit values of the R class
 - Enhanced resistance to suspended loads

MECHANICAL RESISTANCE

We want to offer the best to the market, without compromise: the solidity of the board and of the systems was our target goal in formulating Solidtex.

Hanging of loads

The suspension of loads is an important feature for the end-user.

Our solution is Solidtex. Freedom to customise the rooms without worries.

- Be able to suspend any load without worrying about the point of application
 - Exactly like masonry
 - No additional reinforcements are required, Solidtex achieves maximum values for drywall systems
- Reliability and safety - thanks to its high resistance

SUSTAINABILITY

Solidtex is 100% recyclable. It has a recycled content of more than 35%, thanks to the use of gypsum from alternative sources, a choice driven by Etex BP to preserve natural sources.

Solidtex has very low VOC emissions and is the solution for sustainable building.









The following tables show the average rupture loads obtained from tests performed in partnership with Fischer fixings ** according to BS5234-2 guideline for different combinations of boards and types of anchors. The anchors were applied directly to the boards not to the metal frame, at the centreline between two metal studs.

SHEAR RESISTANCE - Tests according to BS5234-2

Anchor type		Configuration - Number and type of board	
		1 x Solidtex	1 x Solidtex & 1 x FireCheck
	M8x40 Duopower	30kg recommended load in shear	40kg recommended load in shear
	M10x50 Duopower	40kg recommended load in shear	45kg recommended load in shear

- 1) Required safety factors are considered.
- 2) The load data are valid for tension, shear and combined tension and shear load.





The above values refer to the average breaking loads obtained during the tests
The loads to be applied must consider a proper safety factor to be established according to the anchor type and the specific design requirements.

* Failure of the screw inside the anchor, without failure of the boards

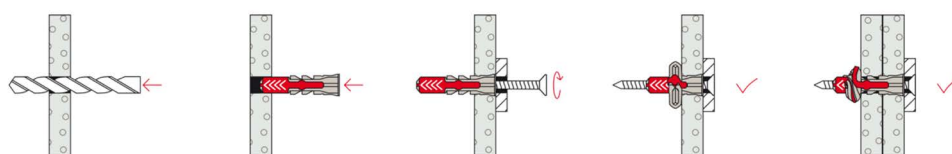
** Fischer fixings is a product of Upat SA



SHELVES AND CABINETS - Eccentric load tests according to BS 5234-2

Anchor type	Configuration - Nr and type of board	
	1 x Solidtex	1 x Solidtex & 1 x FireCheck
 <p>M8x40 Duopower</p>	25kg recommended load in tension	30kg recommended load in tension
 <p>M10x50 Duopower</p>	50kg recommended load in tension	60kg recommended load in tension
 <p>(4) M8x40 Duopower</p>	100kg recommended load in tension	120kg recommended load in tension
 <p>(4) M10x50 Duopower</p>	200kg recommended load in tension	240kg recommended load in tension

ASSEMBLY INSTRUCTIONS



1. Pre-drill Siniat Solidtex board with the desired diameter hole e.g. 8/10mm hammer drill bit for an 8/10mm Duopower plug.
2. Insert the DUOPOWER and gently tap with a rubber hammer until flush with the edge of the board.
3. Align your load/bracket/shelf with the hole of the DUOPOWER and insert the screw, slightly turn until flush with edge of the load/bracket/shelf.
4. The Fischer DUOPOWER adjusts itself automatically to the building material and transfers the highest loads through the three product functions of folding, expanding and knotting.
5. On a double layer system, the plug of the anchor folds or spreads, depending on the building material.

+ SOLIDITY

Systems durability and safety



Impact resistance

The safety and durability of the systems, and minimising maintenance, was of great importance because our solution for almost every kind of application is Solidtex!

Its excellent mechanical properties make Solidtex systems suitable for the residential sector but also for use in environments that can be affected by impacts such as gyms, corridors, schools, and crowded environments.

Burglar resistance

The security of environments is an important demand.

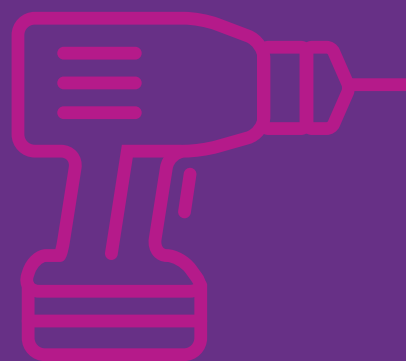
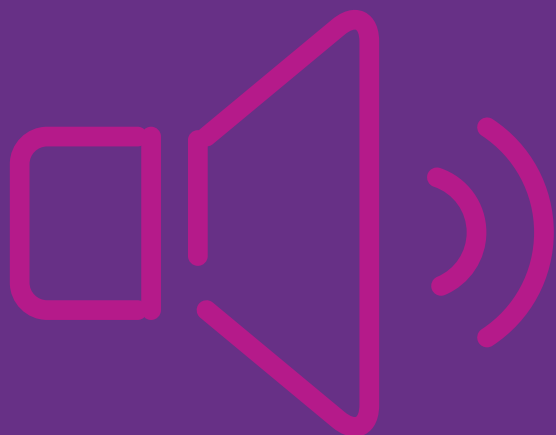
Our solution is simple with Solidtex three boards system!

Burglar resistance has been certified at Istituto Giordano according to UNI EN 1627, UNI EN 1628, UNI EN 1629 and UNI EN 1630 standards, obtaining the RC2 classification with a double frame system and only three Solidtex boards, extremely strong and efficient.



+ PERFORMANCE

Unmatched performance



ACOUSTICS

The comfort of a building is linked to its acoustic performance.

Solidtex, because of its high mass, can be used as an effective sound-insulation solution. A system with only three boards can provide a substantial sound-proofing solution. It guarantees excellent acoustic insulation between units, hospital rooms, hotel rooms and classrooms.

INSTALLATION

Companies involved in the installation look for and select reliable products to ensure high quality of work on sites; confirming their skill and expertise.

Solidtex, with its high aesthetic and remarkable technical specifications, offers a reliable solution that can guarantee:

- Excellent surface finish thanks to the special paper liner
- High level of finishing - without surface skimming
- Workability
 - The boards can be cut with a simple cutter, specific equipments are not required
 - The boards can be handled without special precautions
 - Skimming is not necessary

SYSTEM

Who designs and who invests in drywall construction wants to ensure solutions with high-performance paying attention to the costs but without compromise on the quality of the result.

Rapid and simple solutions:

- The installation of metal studs at 1200 mm spacing allows halving the structure
- Single board systems allow meeting the needs of most of the projects
- Screw center distance 220 as per SABISA guidelines but systems have been tested at 300mm screw spacing

More efficient installation than masonry wall:

- Greater speed and cleaning of the job site
- Easy installation with less finishing steps
- Logistics: light materials, easy to transport and handle
- Services integration: cables and services can be easily integrated within the cavity of the partition
- Job-site management: clean processing and maintenance, with limited production of waste, that can be recycled

The radical Solidtex innovation is the solution that allows us to offer unique, high performance, easy and quick to install systems.



SOLUTIONS

Among the many advantages of drywall systems, there is certainly the possibility of modulating the system configuration (type and number of boards, kind of structure, insulation) according to the required performances.

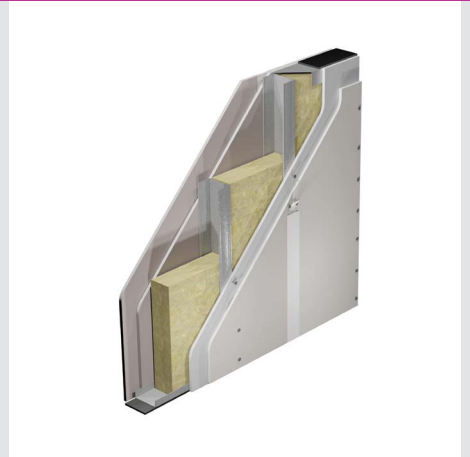
This versatility allows us to offer alternative solutions with different levels of performance to meet all design requirements.

We propose solutions -
distinguishing three types:

S-tex1: Single metal frame
partitions used as walls and
suitable for any intended use



S-tex1: Double board with
single metal frame partitions
used as walls and suitable
for any intended use



S-tex2: Double metal frame
partitions characterised by
high acoustic insulation
and typically used for
the separation between
apartments, patient rooms,
hotel rooms, classrooms etc



***S-tex1: Single board with single metal frame walls**

SYSTEM	THICKNESS	MAXIMUM HEIGHT	SOUND INSULATION R_w	RESISTANCE TO SUSPENDED LOADS	HUMID ENVIRONMENTS
S-tex1.1	89 mm	4.27 m	49 dB	★★★	YES
S-tex1.2 bis 1200mm stud spacing	89 mm	3.27 m	49 dB	★★★	YES
S-tex1.3	127 mm	6.89 m	40 dB	★★★★	YES
S-tex1.4 bis 1200mm stud spacing	100 mm	5.40 m	61 dB	★★★★★	YES

***S-tex1: Double board with single metal frame walls**

SYSTEM	THICKNESS	MAXIMUM HEIGHT	SOUND INSULATION R_w	RESISTANCE TO SUSPENDED LOADS	HUMID ENVIRONMENTS
S-tex1.6	119 mm	5.40 m	58 dB	★★★	YES
S-tex1.6 bis	114 mm	5.31 m	49 dB	★★★★	YES
S-tex1.8	152 mm	7.55 m	51 dB	★★★★★	YES
S-tex1.10	155 mm	8.48 m	55 dB	★★★★★	YES

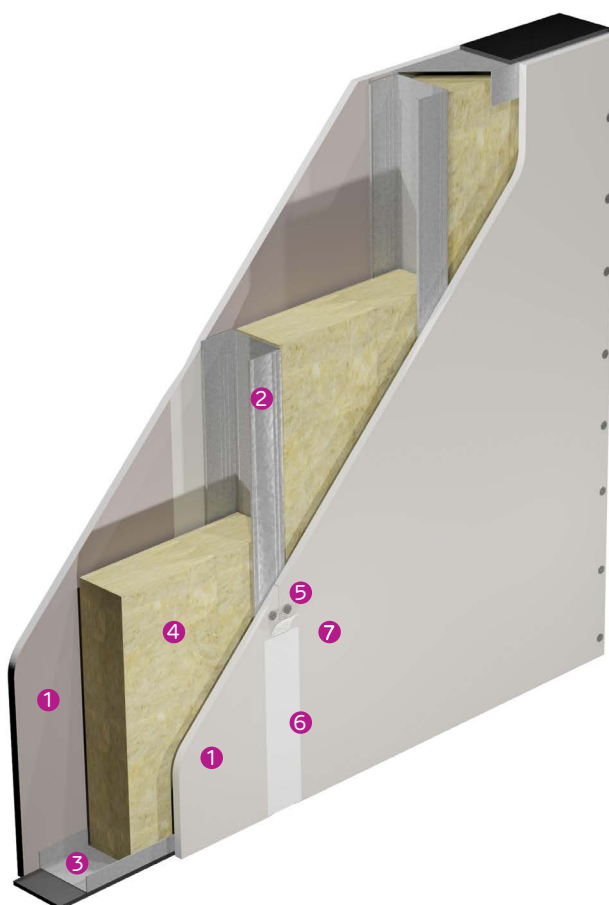
***S-tex2: Double board with twin metal frame walls**

SYSTEM	THICKNESS	MAXIMUM HEIGHT	SOUND INSULATION R_w	RESISTANCE TO SUSPENDED LOADS	HUMID ENVIRONMENTS
S-tex2.1	178 mm	6.00 m	71 dB	★★★	YES
S-tex2.2	183 mm	6.76 m	74 dB	★★★★	YES
S-tex2.3	200 mm	6.56 m	66 dB	★★★★★	YES
S-tex2.4	205 mm	7.56 m	76 dB	★★★★	YES

NOTE: System S-TeX1.2 bis to System S-tex2.4 fire rating is based on rational design.

S-TEX1: SINGLE BOARD AND SINGLE METAL FRAME WALL

S-TEX1.1, 1.2 bis, 1.3 and 1.4 bis



- ① Siniat Solidtex board
- ② Solidtex Stud*
- ③ MasterFrame Track
- ④ Glasswool Insulation
- ⑤ Solidtex High-density screws
- ⑥ Siniat jointing compound
- ⑦ Siniat FibaTape

ADVANTAGES

- Thin system
- Speed of installation
- Possibility to fix shelves and suspended loads
- Moisture resistant
- Innovation: 1200 mm stud spacing allowed

CONSUMPTION ⁽¹⁾

	i = 600 mm	i = 1200 mm
Siniat Solidtex board	2.10 m ²	2.10 m ²
Siniat MasterFrame Track	0.70 m	0.70 m
Siniat Solidtex Studs	1.75 m	0.85 m
Siniat Solidtex High-density screws	18 U	12 U
Siniat FibaTape	1.75 m	1.75 m
Siniat jointing compound	0.70 kg	0.70 kg
Glasswool insulation	1.05 m ²	1.05 m ²

TECHNICAL FEATURES

	S-TEX 1.1	S-TEX 1.2 bis	S-TEX 1.3	S-TEX 1.4 bis
Wall thickness	89 mm	89 mm	127 mm	127 mm
Partition weight	27.93 kg/m ²	27.39 kg/m ²	27.88 kg/m ²	42.55 kg/m ²
Max height ⁽²⁾	4,27 m	3,27 m (studs at 1200 mm)	6.89 m (studs at 600 mm)	5.21 m (studs at 1200 mm)
Sound insulation ⁽³⁾	R _w = 49 dB	R _w = 49 dB	R _w = 40 dB	R _w = 49 dB
Fire resistance ⁽⁴⁾	EI 60	EI 60	EI 60	EI 60
Hanging of loads	See pages 10-11			

⁽¹⁾ Average consumption per m² for 3m height wall considering a scrap of 5%

⁽²⁾ Maximum height for partition subjected to horizontal load of 1.00 kN/m applied at 1,20 m height above the floor according to Technical Development test report 20032020-708-WTR-bending

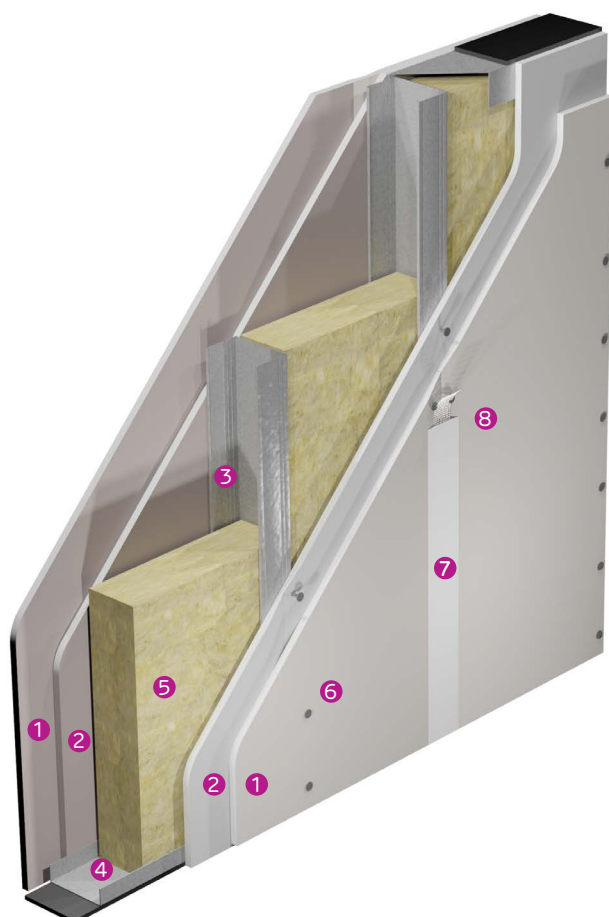
⁽³⁾ Technical Development 20200608-WTR-ACO 20009

⁽⁴⁾ Firelab certificate. 351340-3917FR (studs at 60 cm)

* Two different stud options, 64 mm and 102 mm

S-TEX1: DOUBLE BOARD AND SINGLE METAL FRAME WALL

S-TEX1.6, 1.6 bis, 1.8 and 1.10



- ① Solidtex board
- ② Siniat FireCheck board*
- ③ Solidtex Stud**
- ④ MasterFrame Track
- ⑤ Glasswool 14kg/m³
- ⑥ Solidtex High-density screws
- ⑦ Siniat jointing compound
- ⑧ Siniat FibaTape

ADVANTAGES

- Thin system
- Possibility to fix shelves and suspended loads
- Moisture resistant
- High sound insulation

CONSUMPTION ⁽¹⁾

Siniat Solidtex board	2.10 m ²
Siniat FireCheck 15mm board	2.10 m ²
Siniat MasterFrame Track	0.70 m
Siniat Solidtex Studs	1.75 m
Siniat Drywall screws 25mm screws (first layer)	6 U
Siniat Solidtex High-density screws (second layer)	18 U
Siniat FibaTape	1.75 m
Siniat jointing compound	0.70 kg
Glasswool	1.05 m ²

TECHNICAL FEATURES

	S-TEX 1.6	S-TEX 1.6 bis	S-TEX 1.8	S-TEX 1.10
Wall thickness	119 mm	114 mm	152 mm	155 mm
Partition weight	63.86 kg/m ²	54.14 kg/m ²	44.70 kg/m ²	49.80 kg/m ²
Max height ⁽²⁾	5.4 m	5.31 m	7.55 m	8.48 m
Sound insulation	R _w = 58 dB ³	R _w = 49 dB ⁴	R _w = 51 dB ⁴	R _w = 55 dB ⁴
Hanging of loads	See pages 10-11			

⁽¹⁾ Average consumption per m² for 3 m height wall considering a scrap of 5%

⁽²⁾ Maximum height for partition subjected to horizontal load of 20daN/m² applied at 1,20 m height above the floor according to Technical Development test report 20032020-708-WTR-bending

⁽³⁾ Technical Development 20200608-WTR-ACO 20009

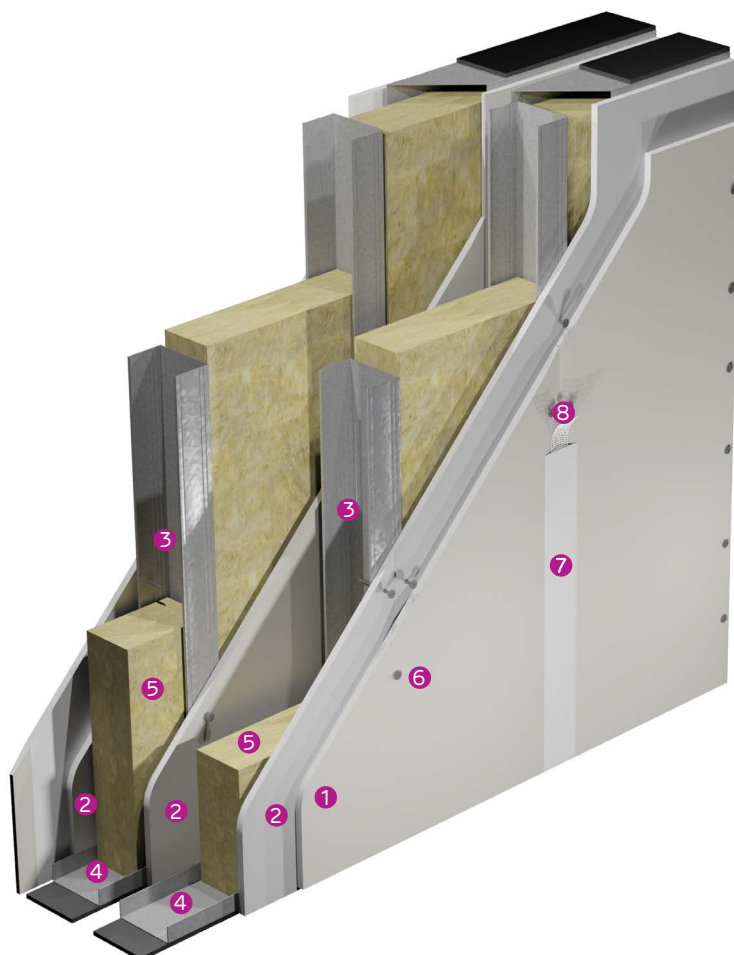
⁽⁴⁾ Firelab certificate. 351340-3917FR (studs at 60 cm)

*Two different board thickness options, 12.5 mm and 15 mm

**Two different stud options, 64 mm and 102 mm

S-TEX2: DOUBLE BOARD AND DOUBLE METAL FRAME WALL

S-TEX 2.1



- ① Siniat Solidtex board
- ② Siniat FireCheck board
- ③ Siniat MasterFrame Stud
- ④ Siniat MasterFrame Track
- ⑤ Glasswool
- ⑥ Solidtex High-density screws
- ⑦ Siniat jointing compound
- ⑧ Siniat FibaTape

ADVANTAGES

- Anti-burglar
- Excellent sound insulation
- Possibility to fix shelves and suspended loads
- Moisture resistant

CONSUMPTION ⁽¹⁾

	i = 60 cm
Solidtex board	2.10 m ²
FireCheck board	3.15 m ²
MasterFrame Track	1.40 m
MasterFrame Studs	3.50 m
Siniat Drywall screws (first layer)	15 U
Siniat Solidtex High-density screws (second layer)	18 U
Siniat FibaTape	1.75 m
Siniat jointing compound	0.70 kg
Glasswool	2.10 m ²

TECHNICAL FEATURES

Partition thickness	178 mm
Partition weight	62.71 kg/m ²
Max height ⁽²⁾	6.00 m
Sound insulation ⁽³⁾	R _w = 71 dB
Burglar resistance ⁽⁴⁾	RC2
Thermal transmittance	U = 0.22 W/m ² K
Hanging of loads	See pages 10-11

⁽¹⁾ Average consumption per m² for 3 m height wall considering a scrap of 5%

⁽²⁾ Maximum height for partition subjected to horizontal load of 1.00 kN/m applied at 1,20 m height above the floor according to DM 17/01/2018

⁽³⁾ ITC Avignon internal test



+ INFO

Technical data



DATASHEET

Plasterboard type	DEFH1IR
Edges	Tapered
Nominal thickness	12,5 mm
Nominal width	1200 mm
Nominal length	3000 mm
Density	> 1200 kg/m ³
Weight	> 15,0 kg/m ²
Fire reaction	SANS 10400 Part T
Thermal conductivity	$\lambda = 0,25 \text{ W/mK}$
Water vapour diffusion resistance factor - Dry cup - Wet cup	$\mu_{\text{dry}} \approx 10$ $\mu_{\text{wet}} \approx 4$
Surface water absorption	$\leq 180 \text{ g/m}^2$
Total water absorption	$\leq 5 \%$
Flexural breaking load - Longitudinal direction - Transverse direction	> 725 N > 300 N
Surface hardness (diameter of the depression)	$\leq 15 \text{ mm}$
Sustainability - Recyclability - Recycled content	100 % > 35 %

SOLIDTEX RANGE

BOARDS							
CODE	DESCRIPTION	THICKNESS MM	WIDTH MM	LENGTH MM	PACKAGING	N° OF BOARDS PER PALLET	KG PER PACKAGE
189200	Solidtex BA12,5 3000 x 32 P	12,5	1200	3000	115,2 m ²	32	1790
SCREWS							
4069551	Solidtex 4,2x32	-	-	-	1000 pieces box	-	-
4064712	Solidtex 4,2X42	-	-	-	1000 pieces box	-	-
STUDS							
190010	Solidtex Stud	64	3000	-	1000 pieces box	-	-
190011	Solidtex Stud	102	3000	-	1000 pieces box	-	-

There are
revolutions that
break down the
walls and others that
change the rules
of building.





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