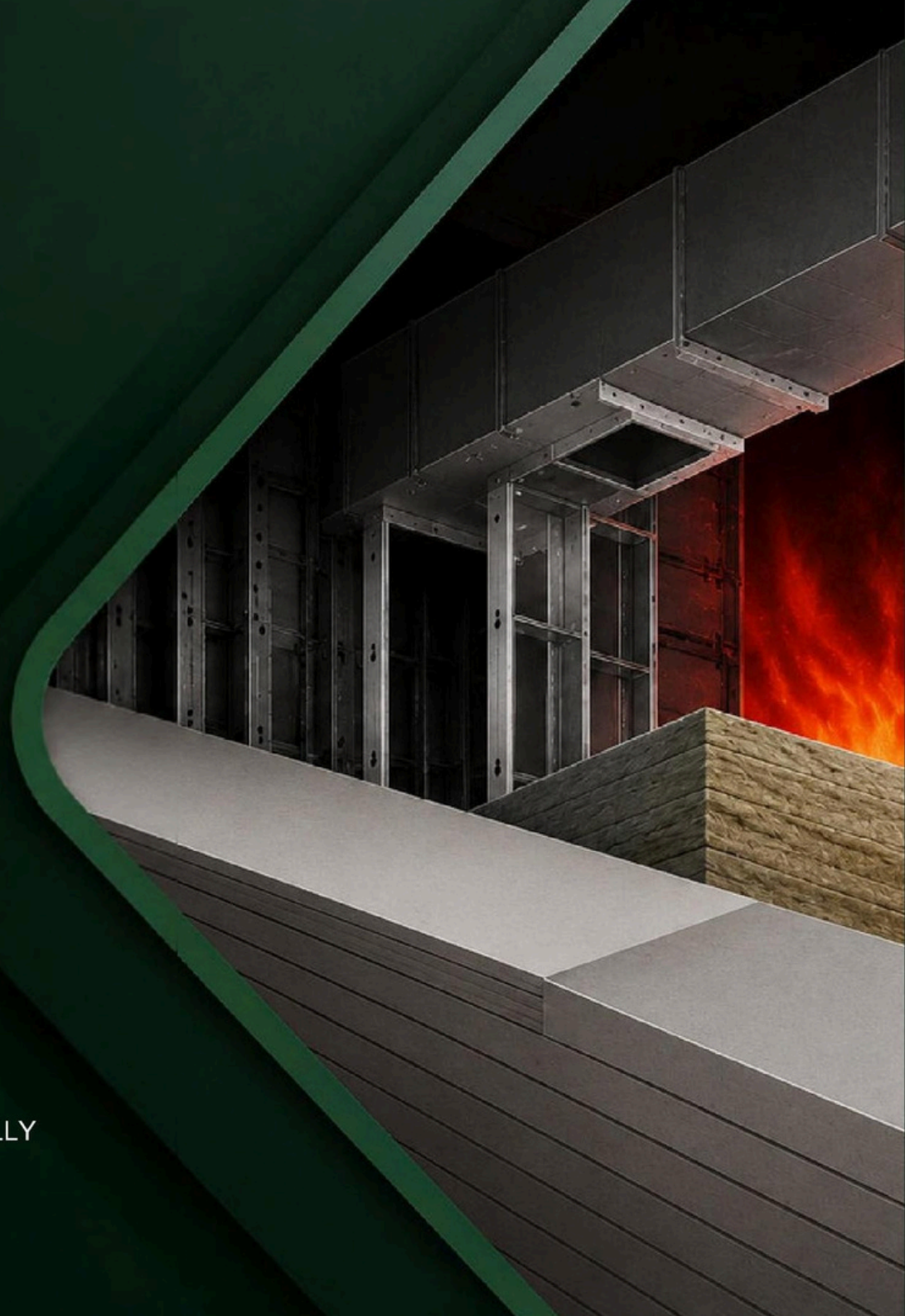
onat gyps

FIRE CATALOGUE



FIRE RESISTANCE

THERMAL INSULATION

ACOUSTIC COMFORT

ENVIRONMENTALLY FRIENDLY


I'm not afraid
because I'm
Onatpan Red
onatpon



ABOUT US

Onpo Madencilik Sanayi ve Ticaret AŞ commencedoperationsinthe gypsum sector under the ONAT ALÇI brand at the gypsum plant it establishedin 2011 atthe20th km of the Ankara Bala Road.

With growth as its constant goal, Onpo Madencilik AŞ expanded its product range with the ONATPAN plant it established on the same site in 2015. At its plant built on an area of 100,000 m², Onpo Madencilik AŞ has an annual production capacity of 450,000 tonnes of powdered gypsum and 30,000,000 m² of gypsum board.

With its precisioninproductionand quality controlprocessesandits customer-focused sales principles, the company ranksamongtheleading firms in theTurkishgypsumsector.

In line withtheseprinciples,Onpo Madencilik will continue to make investments thatwilldevelopthesector and the Turkisheconomyandtoprovide the best servicestoourcustomers.

TERMINOLOGY



REGULATION ON THE FIRE PROTECTION OF BUILDINGS (BYKHY)

Published in: Official Gazette, 19 December 2007 (and has been amended many times).

SCOPE:

Sets out the fire precautions to be taken in the design, construction, installations and operation of buildings. Regulates matters such as fire resistance classes, escape routes, fire compartments, smoke control, emergency lighting and sprinkler systems. Defines the reaction to fire classes of building materials (A1, A2, B, etc.) and fire resistance periods (REI 30, 60, 90, etc.).

TS EN 520+A1, TS EN 15283 Standards (Gypsum Boards)

SCOPE:

Specify the definition, classification, characteristics, test methods and marking of gypsum boards.
Fire-resistant gypsum boards such as Type F, Type FR, DFH1IR and GMH1FR are tested and certified according to this standard.

TS EN 13501 Series (Fire Classifications)

SCOPE:

TS EN 13501-1: Reaction to fire classification of construction products
TS EN 13501-2: Fire resistance classification of building elements
TS EN 13501- 3 and 4: Fire performance of installation and service elements

These standards are used to determine the classes, such as A1 and A2-s1, d0, of the products in this catalogue.
The CE Conformity and Construction Products Regulation (EU 305/2011 – CPR) is the Turkish adaptation of the European Union's Construction Products Regulation (CPR).
It contains the mandatory testing and declaration criteria for the fire performance declaration (DoP) and CE marking.

DEFINITIONS



FIRE

Fire can be defined as a chemical reaction that starts and spreads in an uncontrolled manner. Technically, fire is a rapid oxidation reaction resulting from the combination of the triad of oxygen, heat and combustible material. The occurrence and development of a fire lead to adverse effects such as loss of life and material damage, and require an organised firefighting response.

FIRE RESISTANCE RATING

The overall capacity of a building or fire compartment to respond to the effects of a standard fire, irrespective of its intended use or function.

FIRE COMPARTMENTS

Detached structures, as well as assembled or grouped structures located at normal distances from neighbouring buildings or separated from adjoining buildings by fire-resistant partitions.

REACTION TO FIRE

The behaviour of a material that, under specified conditions, feeds the fire to which it is exposed through its own decomposition. The sum of the physical and chemical changes that occur when a material, product or assembly is exposed to the effects of a standard fire.

COMBUSTION OF MATERIALS (Building Elements)

The capacity of materials to ignite and continue burning, contributing to an increase in the heat produced by the fire.

FLAMMABILITY

The capacity of a material or product to burn with a flame under specified conditions.

FIRE RESISTANCE

The capacity of a product to maintain, for a specified period of time, fire resistance, integrity, applied thermal insulation and/or other required functions specified in a standard resistance test.

TYPE F

Fire-Resistant Gypsum Board

TS EN 520+A1 2
July 2010



ONATPAN RED

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

REACTION TO FIRE CLASSIFICATION ACCORDING TO EN 13501-1

Class	Combustibility / Reaction to Fire	Smoke Production (s)	Flaming Droplets / Particles (d)	Description
A1	Non-combustible; makes no contribution to fire	–	–	Makes no contribution at any stage of the fire; the safest class
A2	Very limited combustibility; makes no significant contribution to the fire load in a fully developed fire	s1 / s2 / s3	d0 / d1 / d2	Meets class B criteria; s1,d0 is the safest combination
B	More combustible; meets class C criteria	s1 / s2 / s3	d0 / d1 / d2	Requires a more stringent reaction to fire than class C
C	Moderately combustible; meets class D criteria	s1 / s2 / s3	d0 / d1 / d2	Requires a more stringent reaction to fire than class D
D	Readily combustible; meets class E criteria	s1 / s2 / s3	d0 / d1 / d2	Can withstand short-term small flame attack
E	Can withstand short-term small flame attack	–	d2	Limited resistance to flame spread
F	Products that cannot be classified in classes A1–E	–	–	Untested or readily combustible products

Criteria

Certain technical values are required for correct classification:
Nominal thickness (mm)
Gypsum core density (kg/m³)
Paper liner weight (g/m²)
These parameters play a critical role in determining the ignition and smoke production of the board.

Flaming Droplet Classes (d)

d0: Nodripping
d1: Somedripping
d2: Heavydripping

Class Combination Examples
A2-s1,d0: Very low combustibility, little smoke, no flaming droplets.
B-s2,d1: Moderately combustible, produces moderate smoke, limited flaming droplets.

FIRE-RESISTANT PRODUCT PROPERTIES

Product Name: TYPE F / TYPEFR / TYPEFRH / DFH1IR–InteriorProducts

TYPE F

Type F gypsum boards are designed for use in standard fire-resistant systems. They contain special additives that resist high temperatures. In the event of fire, they retain their form, delaying the spread of flame and extending the time available for safe evacuation. They provide both durability and ease of workability in interior wall and ceiling applications.

TYPE FR

TypeFR gypsum boards have been developed for areas requiring advanced fire resistance and have enhanced strength. Thanks to their special fibre reinforcement and high-density structure, they offer superior protection against prolonged flame exposure. They are preferred in public buildings, hotels and industrial facilities. They are an indispensable solution for modern buildings in terms of both safety and aesthetics.

The technical properties of Type F and Type FR gypsum boards have been determined through tests and analyses carried out in accordance with TS EN 520+A1, demonstrating the high quality and reliability standards of our products.

TYPE DFH1IR

Thesegypsum boards have been developed for special applications requiring high fire resistance, moisture resistance and enhanced mechanical performance. Thanks to their special fibre reinforcement and high-density core structure, they provide long-lasting integrity and strength during a fire, contributing to the safety of building elements. Their moisture-resistant structure helps the board maintain its performance under variable environmental conditions.

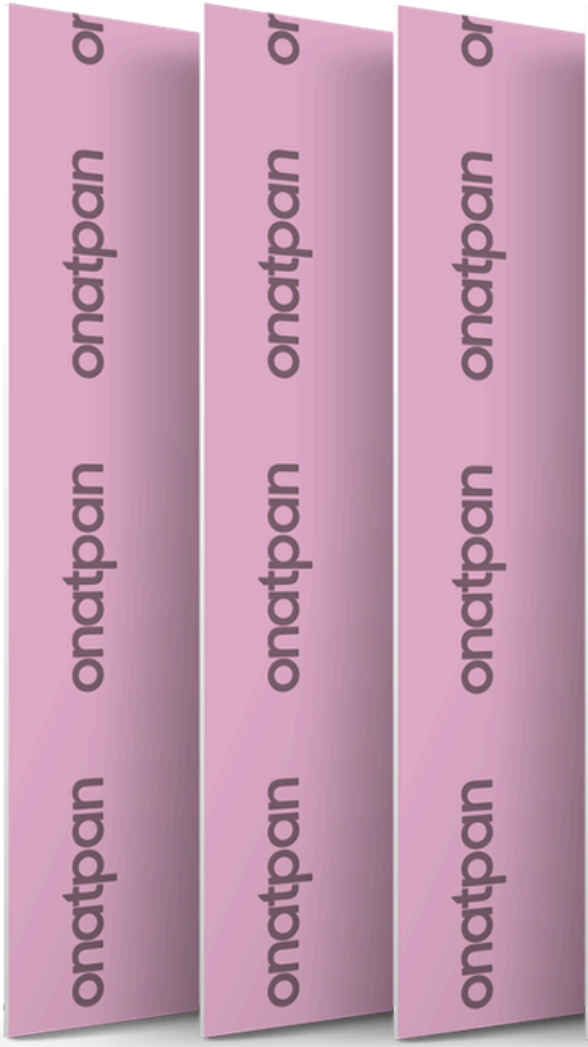
They are reliably preferred in commercial buildings, hotels, public buildings, industrial facilities and special construction applications where fire and moisture performance are required together. With its high performance and durability, DFH1IR is a solution suited to the safety and comfort needs of modern buildings.



FIRE-RESISTANT PRODUCT PROPERTIES

Product Name: TYPE F / TYPE FR / TYPE FRH / DFH1IR – Interior Products

TS EN ISO 1716 / Reaction to fire tests for building products – Determination of the heat of combustion (calorific value) and
TS EN 13823 / Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item – having been subjected to the tests of these standards,
TS EN 13501-1 / Fire classification of construction products and building elements – Part 1: Our classification using data from reaction to fire tests is as shown in the table below.



Fire behaviour	Smoke production	Flaming droplets
A2	s1	d0


Not even desert heat
gets through!
onatpan

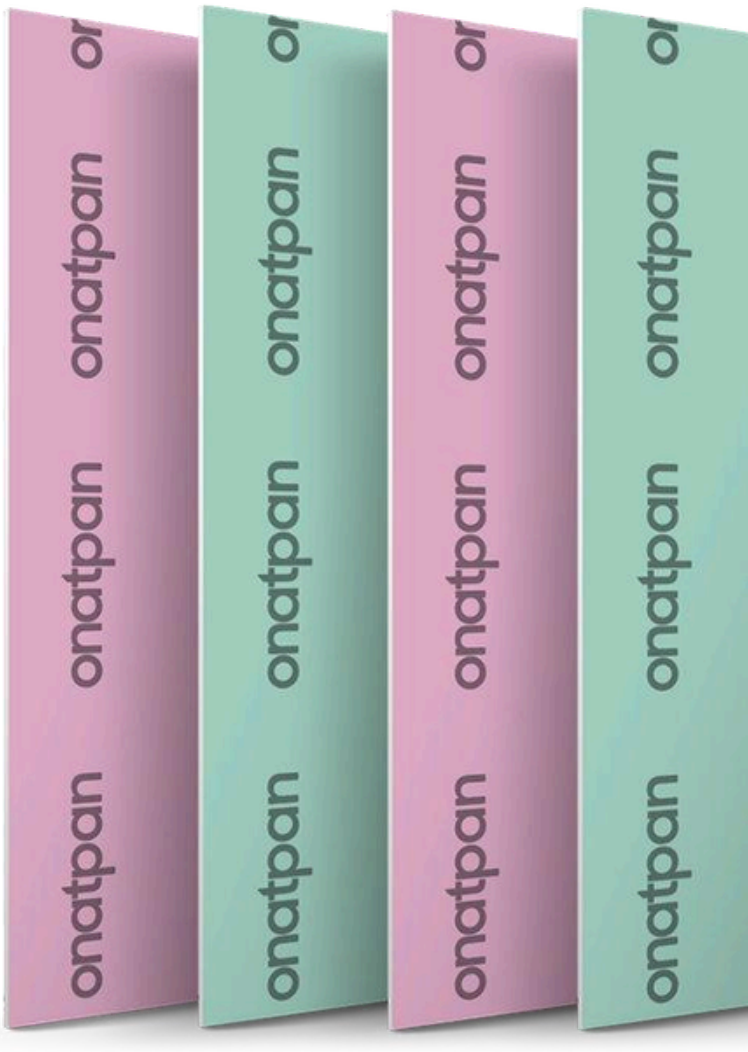
FIRE-RESISTANT PRODUCT PROPERTIES

TYPE FRH

TYPEFRH gypsum board is a special gypsum board resistant to fire, moisture and impact. Thanks to its high-density core structure, it provides long-lasting resistance to heat and flame. The special facing used on the board surface prevents deformation and mould growth in humid environments. It is therefore preferred particularly in areas with both fire and moisture risk, such as bathrooms, kitchens, hotels and hospitals. Thanks to its durable structure, it offers a long-lasting and safe interior lining solution.

TS EN ISO 1716 / Reaction to fire tests for building products – Determination of the heat of combustion (calorific value) and
TS EN 13823 / Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item – having been subjected to the tests of these standards,
TS EN 13501-1 / Fire classification of construction products and building elements – Part 1: Our classification using data from reaction to fire tests is as shown in the table below.

Fire behaviour	Smoke production	Flaming droplets
A2	s1	d0



PRODUCT NAME: TYPE F / TYPE FR / TYPE FRH / DFH1IR – INTERIOR PRODUCTS

DIMENSIONAND PACKAGING VALUES FOR 4 PRODUCTS;

ONATPAN 9,5 MM

Width (mm)	Length (mm)	Packaging
1200	2000	30–90 Pcs./Pallet
1200	2200	30–90 Pcs./Pallet
1200	2400	30–90 Pcs./Pallet
1200	2500	30–90 Pcs./Pallet
1200	3000	30–90 Pcs./Pallet

ONATPAN 12,5 MM

Width (mm)	Length (mm)	Packaging
1200	2000	30–90 Pcs./Pallet
1200	2200	30–90 Adet/Palet
1200	2400	30–90 Pcs./Pallet
1200	2500	30–90 Pcs./Pallet
1200	3000	30–90 Pcs./Pallet

ONATPAN 15 MM

Width (mm)	Length (mm)	Packaging
1200	2000	20–70 Pcs./Pallet
1200	2200	20–70 Pcs./Pallet
1200	2400	20–70 Pcs./Pallet
1200	2500	20–70 Pcs./Pallet
1200	3000	20–70 Pcs./Pallet

ONATPAN 18 MM

Width (mm)	Length (mm)	Packaging
1200	2000	20–50 Pcs./Pallet
1200	2200	20–50 Pcs./Pallet
1200	2400	20–50 Pcs./Pallet
1200	2500	20–50 Pcs./Pallet
1200	3000	20–50 Pcs./Pallet

TYPE F / Strength values according to TS EN 520+A1

TYPE F / Strength values according to TS EN 520+A1

Nominal Thickness	9,5 mm	12,5 mm	15 mm	18 mm
Flexural Breaking Load (Transverse Direction) (N)	≥ 160	≥ 210	≥ 250	≥ 302
Flexural Breaking Load (Longitudinal Direction) (N)	≥ 400	≥ 550	≥ 650	≥ 774
Edge Type	Square Edge, Tapered Edge	–	–	–
Thermal Conductivity (W/m.K)	24	–	–	–
Core Cohesion (Minutes)	≥ 15	–	–	–
Water Vapour Diffusion Resistance Factor	10	–	–	–
Reaction to Fire Class	A2-s1-d0	–	–	–

TYPE FR / Strength values according to TS EN 520+A1

TYPE FR / Strength values according to TS EN 520+A1

Nominal Thickness	9,5 mm	12,5 mm	15 mm	18 mm
Flexural Breaking Load (Transverse Direction) (N)	≥ 228	≥ 300	≥ 360	≥ 432
Flexural Breaking Load (Longitudinal Direction) (N)	≥ 551	≥ 725	≥ 870	≥ 1044
Edge Type	Square Edge, Tapered Edge	–	–	–
Thermal Conductivity (W/m.K)	24	–	–	–
Core Cohesion (Minutes)	≥ 15	–	–	–
Water Vapour Diffusion Resistance Factor	10	–	–	–
Reaction to Fire Class	A2-s1-d0	–	–	–

TYPE FRH

Moisture - and Fire-Resistant Gypsum Board

TS EN 520 + A1
December 2012



ONATPAN MAROON

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

ONATPAN MAROON (RED / GREEN) TYPE FRH / TS EN 520+A1

Strength values according to the standard

Nominal Thickness	9,5 mm	12,5 mm	15 mm	18 mm
Flexural Breaking Load (Transverse Direction) (N)	⩾ 228	⩾ 300	⩾ 360	⩾ 432
Flexural Breaking Load (Longitudinal Direction) (N)	⩾ 551	⩾ 725	⩾ 870	⩾ 1044
Edge Type	Square Edge, Tapered Edge			
Thermal Conductivity (W/m.K)	24			
Total Water Absorption (%)	H1	⩽ 5		
	H2	⩽ 10		
	H3	⩽ 25		
Surface Water Absorption (g/m2)	H1	< 180		
	H2	< 220		
	H3	< 300		
Water Vapour Diffusion Resistance Factor	10			
Core Cohesion (Minutes)	⩾ 15			
Reaction to Fire Class	A2-s1-d0			

TS EN

TS EN 13823/ Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item – having been subjected to the tests of these standards,

TS EN 13501-1/ Fire classification of construction products and building elements – Part 1:

Our classification using data from reaction to fire tests is as shown in the table below.

Fire behaviour	Smoke production	Flaming droplets
A2	s1	d0
REACTION TO FIRE CLASS: A2-s1,d0		

DFH1IR

Moisture- and Fire-ResistantHigh-Strength Gypsum Board



TS EN 520 +A1
December 2012

A2

ONATPAN RED & WHITE

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

ONATPAN RED & WHITE DFH1IR / TS EN 520+A1

Strength values according to the standard

Nominal Thickness	9,5 mm	12,5 mm	15 mm	18 mm
Flexural Breaking Load (Transverse Direction) (N)	⩾ 228	⩾ 300	⩾ 360	⩾ 432
Flexural Breaking Load (Longitudinal Direction) (N)	⩾ 551	⩾ 725	⩾ 870	⩾ 1044
Edge Type	Square Edge, Tapered Edge			
Thermal Conductivity (W/m.K)	24			
Total Water Absorption (%)	H1	⩽ 5		
	H2	⩽ 10		
	H3	⩽ 25		
Surface Water Absorption (g/m2)	H1	< 180		
	H2	< 220		
	H3	< 300		
Water Vapour Diffusion Resistance Factor	10			
Core Cohesion (Minutes)	⩾ 15			
Reaction to Fire Class	A2-s1-d0			

TS EN

TS EN 13823/Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item – having been subjected to the tests of these standards,

TS EN 13501-1/Fire classification of construction products and building elements – Part 1:

Our classification using data from reaction to fire tests is as shown in the table below.

Fire behaviour	Smoke production	Flaming droplets
A2	s1	d0
REACTION TO FIRE CLASS: A2-s1,d0		

PEACE OF MIND WITH ONAT!

TS EN 15283-1+A1
December 2012

ONEX ROOF



Glass Fibre Mat Roof Board

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

A2

PEACE OF MIND WITH ONAT!

TS EN 15283-1+A1

December 2012

ONEX



Glass Fibre Mat Exterior Board

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

A2

PRODUCT NAME: ONEX / ONEX ROOF – EXTERIOR PRODUCTS

ONEX/ONEX ROOF:

Width (mm)	Length (mm)	Packaging	Pcs. / Pallet
ONEX 12,5 mm	1200	2000	20-80 Pcs./Pallet
	1200	2200	20-80 Pcs./Pallet
	1200	2400	20-80 Pcs./Pallet
	1200	2500	20-80 Pcs./Pallet
	1200	3000	20-80 Pcs./Pallet
	Width (mm)	Length (mm)	Packaging
ONEX 15 mm	1200	2000	20-70 Pcs./Pallet
	1200	2200	20-70 Pcs./Pallet
	1200	2400	20-70 Pcs./Pallet
	1200	2500	20-70 Pcs./Pallet
	1200	3000	20-70 Pcs./Pallet
	Width (mm)	Length (mm)	Packaging
ONEX 18 mm	1200	2000	20-50 Pcs./Pallet
	1200	2200	20-50 Pcs./Pallet
	1200	2400	20-50 Pcs./Pallet
	1200	2500	20-50 Pcs./Pallet
	1200	3000	20-50 Pcs./Pallet

TYPE GM-FH1R exterior gypsum board is a special gypsum board manufactured in accordance with EN 15283-1, mat-faced, fibre-reinforced, with enhanced fire resistance and a reduced water absorption rate. The board core is reinforced with glass and cellulose fibres, giving it high resistance to impact and thermal expansion.

Faced on both sides with glass fibre mat, the board provides superior resistance to water, moisture, frost and UV radiation in exterior applications. Thanks to its FH1 class structure, it combines both fire safety (F) and water resistance (H1).



ONEX / STRENGTH VALUES ACCORDING TO EN 15283-1+A1

Nominal Thickness	12,5 mm	15 mm	18 mm
Flexural Breaking Load (Transverse Direction) (N)	⩾ 300	⩾ 360	⩾ 432
Flexural Breaking Load (Longitudinal Direction) (N)	⩾ 725	⩾ 870	⩾ 1044
Edge Type	Square Edge, Tapered Edge		
Thermal Conductivity (W/m.K)	24		
Core Cohesion (Minutes)	⩾ 15		
Total Water Absorption (%)	H1	⩽ 5	
	H2	⩽10	
Water Vapour Diffusion Resistance Factor	10		
Reaction to Fire Class	A1		



ONEX ROOF / STRENGTH VALUES ACCORDING TO EN 15283-1+A1

Nominal Thickness	12,5 mm	15 mm	
Flexural Breaking Load (Transverse Direction) (N)	⩾ 300	⩾ 360	
Flexural Breaking Load (Longitudinal Direction) (N)	⩾ 725	⩾ 870	
Edge Type	Square Edge, Tapered Edge		
Thermal Conductivity (W/m.K)	24		
Core Cohesion (Minutes)	⩾ 15		
Total Water Absorption (%)	H1	⩽ 5	
	H2	⩽10	
Water Vapour Diffusion Resistance Factor	10		
Reaction to Fire Class	A1		



Thickness (mm)	Length (mm)	Pcs. / Pallet
12,5	1,8	20–60
	2	20–60
	2,2	20–50
	2,3	20–50
	2,4	20–50
	2,5	20–50
	2,6	20–50
	2,8	20–50
	3	20–50
15	1,8	20–60
	2	20–60
	2,2	20–50
	2,3	20–50
	2,4	20–50
	2,5	20–50
	2,6	20–50
	2,8	20–50
	3	20–50

ONEX ROOF DIMENSIONS

Classification using data from TSEN 13501-1/Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests and TS EN ISO 1182/Reaction to fire tests for products – Non-combustibility test,

Our classification using data from TS EN ISO 1716/Reaction to Fire Tests for Building Products – Determination of the Gross Heat of Combustion (calorific value) (ISO 1716:2018) and TS EN 13823/Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item is as shown in the table below.

Fire Behaviour	Smoke Production	Flaming Droplets
A1	No classification	No classification

REACTION TO FIRE CLASS: A1

TYPE F 15-MINUTE CORE COHESION AT HIGH TEMPERATURE

TYPE F gypsum board is fire-resistant, and its core cohesion is tested inaccordance with EN 520. In this test, the board specimen is exposed to high temperature for 15 minutes and it is assessed whether the gypsum core retains its integrity. At the end of the test, the board core must maintain its structural integrity by retaining its cohesion without disintegrating. This property demonstrates the dimensional stability and strength of TYPE F boards during a fire and makes them suitable for use in areas requiring firesafety. Applies to all product sizes. (9.5 mm, 12 mm, 15 mm, 18 mm)

TYPE FR/DFH1IR 120-MINUTE FIRE RESISTANCE

Board Thickness: 12.5 mm
EI 120, E 120, EW 120

Technical Information:

Certified by a TYPE FR/DFH1IR fire resistance certificate in classes EI 120, E 120 and EW 120, our gypsum board is both robust and lightweight thanks to its fibre-reinforced structure. In the event of fire, it maintains load-bearing integrity and thermal insulation, and thanks to its easy installation it offers ideal solutions for offices, schools, hospitals and residences. Manufactured in accordance with TS EN 13501-2, it offers quality assurance through CE and ISO certificates.

Areas of Use:

Used reliably in interiors where fire and moisture risks coexist, such as bathrooms, kitchens, corridors, hotels, hospitals, schools, and commercial and public buildings.

Features:

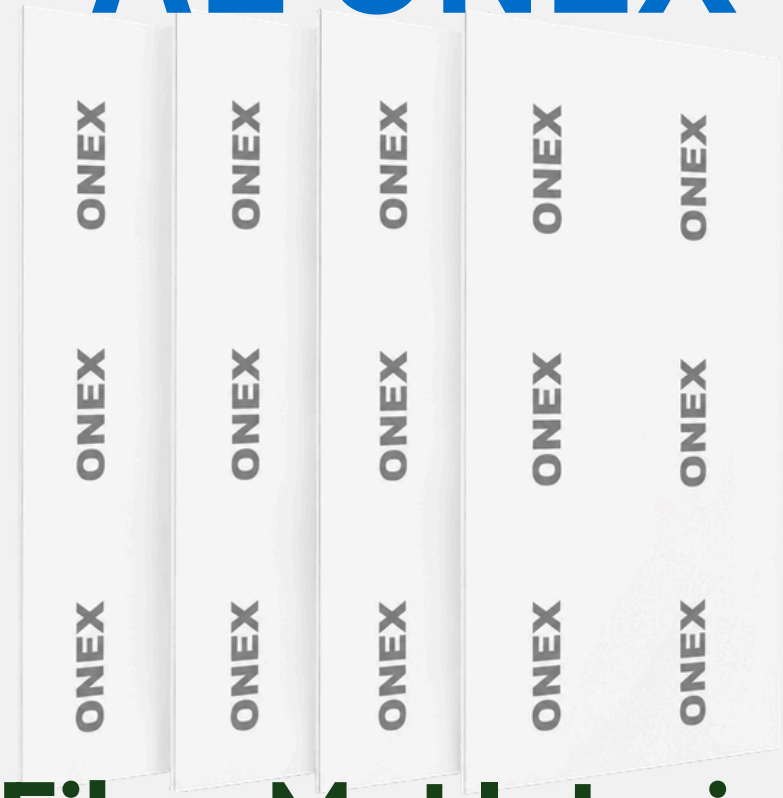
Thickness: 12.5 mm
Fire resistance class: EI 120, E 120, EW 120
Standard: TS 1364-1 / EN 520+A
Edge type: Square Edge – SE (SQUARED EDGE), Square Edge – TE (TAPERED EDGE)

PEACE OF MIND WITH ONAT!

TS EN 15283-1+A1

December 2012

A1 ONEX



Glass Fibre Mat Interior Board

Must be stored on a clean, level surface, off the ground, in areas protected from water and moisture.

A2

Thickness (mm)	Length (mm)	Pcs. / Pallet
12,5	1,8	20–60
	2	20–60
	2,2	20–50
	2,3	20–50
	2,4	20–50
	2,5	20–50
	2,6	20–50
	2,8	20–50
	3	20–50
15	1,8	20–60
	2	20–60
	2,2	20–50
	2,3	20–50
	2,4	20–50
	2,5	20–50
	2,6	20–50
	2,8	20–50
	3	20–50

A1 ONEX – INTERIOR PRODUCTS

TYPE GM-FH1R interior gypsum board is a special gypsum board manufactured in accordance with EN 15283-1, mat- faced, fibre-reinforced, with enhanced fire resistance and a reduced water absorption rate. Its core is reinforced with glass fibres.

Faced on both sides with glass fibre mat, the board provides superior resistance to water, moisture, frost and UV radiation in interior applications. Thanks to its FRH1 class structure, it combines both fire safety (FR) and water resistance (H1).

Fire Behaviour	Smoke Production	Flaming Droplets
A1	No classification	No classification

REACTION TO FIRE CLASS: A1 A1 ONEX / STRENGTH VALUES ACCORDING TO EN 15283-1 A1

Nominal Thickness	12,5 mm	15 mm	
Flexural Breaking Load (Transverse Direction) (N)	⩾ 300	⩾ 360	
Flexural Breaking Load (Longitudinal Direction) (N)	⩾ 725	⩾ 870	
Edge Type	Square Edge, Tapered Edge		
Thermal Conductivity (W/m.K)	24		
Core Cohesion (Minutes)	⩾ 15		
Total Water Absorption (%)	H1	⩽ 5	
	H2	⩽10	
Water Vapour Diffusion Resistance Factor	10		
Reaction to Fire Class	A1		





onat alçı

onpo.com.tr

This document is translated from Turkish to English by certified translator Deniz Anna ADA on 09.10.2026.

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