

intelligence+improvement+innovation

www.g-ext.com.tr

GENTAS

ENVIRONMENTAL DECLARATION

GENTAS OPERATIONAL MEASURES FOR IMPROVEMENT OF ENVIRONMENTAL PERFORMANCES

The production process of "GENTAS" laminates has been adapted to the environment thematic.

New and strict regulations had been adopted to ensure a continuous improvement of the environmental performances.

The purity of the air and of the water is being efficiently protected in the production department area.

All the gases from the impregnation and pressing machinery are absorbed and eliminated in a special steam boiler. This important process is controlled by our Technical Manager and supervised by government authorities.

The residues resulting from the production are efficiently treated in the factory area.

As another part of GENTAS care for the environment, all the raw material used for the production of the laminates are purchased only from suppliers who are in possession of ISO 9002 and Kraft papers only from FSC certificated producers.

Our Kraft paper contains an important percentage of recycled paper (around 20%) and our decorative papers do not contain any of the following materials:

- Cadmium
- Chrome Hexavalent
- Lead
- Mercury
- Polybrominated Biphenils (PBB)
- Polybrominated Diphenylether (PBDE)







We added respect to the nature to the quality of our products. FSC had certified that our laminate products has been manufactured from the sustainable managed resources and submitted for your use.



Surface Characteristics

The most important feature distinguishing exterior surface decorative panels from others is the advanced technology surface characteristics. Resistance to different weather conditions and climate changes, surface and color protection against UV rays, easy clean, fire retardant feature and not releasing poisonous gas are the important characteristics of this surface.

What makes G-Ext® exterior surface decorative panels extremely distinguished in terms of similar products is the proof of these surface characteristics data via high quality scores obtained during the tests performed by world's leading certifying institutions.

- G-Ext® exterior surface decorative panels delay the pollution thanks to its smooth, nonporous and even surface.
- Enables easy cleaning.
- Fire retardant.
- Does not melt during the fire, does not form fire drops, does not burst into flames and explode easily, do not release poisonous gases.
- It is extremely endurable to impact and mechanic pressure.
- Does not include asbestos chloride and toxic materials
- It has a feature that recovers easily after impacts.
- It is highly endurable to corrosion and cracking.
- It is economic and convenient in terms of technical features and endurance.
- It can be easily processed, cut, sized, drilled and formed.
- It is highly endurable to humidity and vapor.



Resistant against impacts



Resistant against scratches



Resistant against chemicals



Resistant against high temperature and fire



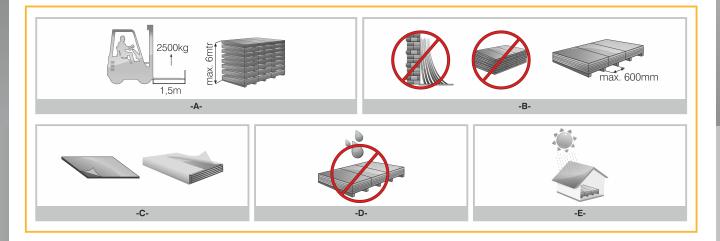
Resistant against UV rays



Easy to decontaminate



Resistant against



Handling and Storage Conditions

A.Mind the weight and the height whilst handling.

B.During storage the sheets must be parallel to the ground and aligned with each other. Do not store vertically.

C.Remove the metal strip from the pallets which are taken to a flat surface. Do not remove the protection film from the panels before installing them. Take out the foil maximum within 24 hours after installation.

D.Store the panels in dry and clean conditions. Keep off the humid environments.

E.Protect the panels from the sun and UV rays. Store them in closed areas. It is definitely not enough to store them in open air by streching a tarp on.

Please Be Careful About the Following Topics

a. Mind there is no water or dust between them whilst handling. // b. Be careful not to make them scrape each other or another substance while handling. // c. After the pallets are opened, reverse the panel which is on the top and put a heavy and flat substance on it.

Cleaning Instructions of G-Ext®

- 1. Clean the surface of the panels with a moist and non-abrasive cloth.
- 2. Pour small amount of cleaning liquid on a moist cloth.
- 3. Clean the panels with this cloth.
- 4. Wait for 5 minutes after cleaning (cleaning liquid should not remain on the surface of the panels more than 30 minutes).
- 5. Then clean the surface of the panel with a clean cloth and make sure no residue of the cleaning liquid remain on the surface of the panel.
- 6. Gentas Group will not accept responsibility for any possible damages that can be occured due to misuse in the cleaning liquid or cleaning procedure
- 7. The use of safety precautions is upon the user's responsibility.

Certificate of constancy of performance



Number 0620-CPR-45875/05 Replaces 0620-CPR-45875/04

Issued 2014-12-01 First issued under CPR 2013-11-01 First issued under CPD 2008-11-01

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

High-pressure decorative laminates (HPL)

whereby the scope of construction products is listed on page 2 of this certificate

produced by or for

GENTAŞ A.Ş.

and produced in the manufacturing plant

GENTAŞ GENEL METAL SANAYI VE TICARET A.Ş.

This certificate attests that all provisions concerning the assessment and verification of constancy of performance in Annex ZA of the standard

EN 438-7:2005

under system 1 for the performances set out in this certificate are applied and that the construction products fulfill all the prescribed requirements for these performances.

This certificate was first issued on 2008-11-01 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performances of the declared essential characteristics, do not change, and the construction product and the manufacturing conditions in the plant are not modified significantly, unless suspended or withdrawn by the product certification body.

Bouke Meekma

Director Kiwa Nederland B.V.

Advise: consult www.kiwa.nl to check whether the certificate is valid.

Notified Body No. 0620 Kiwa Nederland B.V.

Sir Winston Churchilllaan 273 Postbus 70 2280 AB RIJSWIJK The Netherlands

Tel. +31 (0) 70 414 44 00 Fax +31 (0) 70 414 44 20 info@kiwa.nl www.1kiwa.com

Manufacturer

GENTAŞ A.Ş. Dolanti Sk No: 21 Siteler 06610 Ankara TURKEY

T +90.312 353 02 06 F +90.312 350 99 17

E gentas@gentas.com.tr

I www.gentas.com.tr

Manufacturing plant

GENTAŞ GENEL METAL SANAYI VE TICARET A.Ş. Serpek Mevkii 14841 Mengen/BOLU TURKEY

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Number

FPC-48114/03

Issued

2014-01-01

Scope

438-7:2005

Replaces

FPC-48114/02 - 2013-11-01

Declaration of

FACTORY PRODUCTION CONTROL

Kiwa has determined that

GENTAŞ A.Ş.

fulfils all provisions concerning the attestation of conformity and the performances described in Annex ZA of the standard EN 438-7:2005. The products fulfil all of the prescribed requirements.

Product: Compact laminate and HPL composite panels for internal and external wall and ceiling finishes

3. Heenne

Bouke Meekma Kiwa

This certificate consists of 2 pages.
Publication of the certificate is allowed.

Kiwa Nederland B.V.

Sir Winston Churchilllaan 273 Postbus 70 2280 AB RIJSWIJK The Netherlands

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Producer

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Factory/Production site

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Quality statement





K77712/02

Replaces

K77712/01

Issued

2015-01-01

Dated

2013-10-01

Valid until

Indefinite

Page

1 of 24

Gentaş Exterior Compact laminates for façade cladding

GENTAŞ A.Ş.

STATEMENT BY KIWA

This quality statement for product certification with attestation was issued on the basis of Evaluation Guideline 4101 part 1 "Gevelbekleding met panelen Deel 1: algemene eisen" in combination with part 4 "Gevelbekleding met panelen: aanvullende eisen voor decoratieve platen gebaseerd op thermohardende harsen", dated 18 December 2012 including amendment dated 31 December 2014, in conformity with the Kiwa Regulations for Product Certification.

The quality and product characteristics associated with Gentaş Exterior decorative panels are checked periodically and the performance of Gentaş Exterior decorative panels in his application has been reviewed and the principles for the assessment are checked periodically.

On that basis Kiwa declares that:

- the Gentaş Exterior decorative panels manufactured by the certificate holder may be relied upon to meet the technical specifications laid down in the BRL, provided the Gentaş Exterior decorative panels have been marked with the KOMO[®] mark in the manner stated in this quality statement.
- The essential characteristics, as defined in the applicable European standard, are not part of this statement.
- the building components composed from the certified products may be relied upon to deliver a performance laid down in this quality statement, provided:
 - the building components have been manufactured in accordance with the processing methods laid down in this quality statement;
 - the application conditions set out in this quality statement have been met.

Kiwa declares that Gentaş Exterior decorative panels in its applications subject to the abovementioned conditions meets the applicable requirements of the Dutch Construction Order (Bouwbesluit) as specified on page 11 of this quality statement.

Within the framework of this Technical Approval with Product Certificate Kiwa does not carry out any inspection of the production of the other parts of the building component or of the manufacture of the building component itself.

3. Helhne

Bouke Meekma

The quality statement is listed in the overview on the website of Stichting KOMO: www.komo.nl. Advice: consult www.kiwa.nl in order to ensure that this quality statement is still valid.

Holder of Certificate

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Kiwa Nederland B.V.



The following has been assessed: quality system product product performance in the application Periodic inspection

Certificate

Standard

ISO 9001:2008

Certificate Registr. No. 01 100 042870

TÜV Rheinland Cert GmbH certifies:

Certificate Holder:

GENTAŞ Genel Metal Sanayi ve Ticaret A.Ş.

Bolu-Mengen / TURKEY

Scope:

Design, manufacturing and sales of Werzalit table tops, window sills, wall facades, chairs, stools, school desks; MDF profiles; decorative high pressure laminates (HPL), continually pressed laminates (CPL) and impregnated paper

An audit was performed, Report No. 042870. Proof has been furnished that the requirements according to ISO 9001:2008 are fulfilled.

The due date for all future audits is 06-05 (dd.mm).

Validity:

The certificate is valid from 2013-05-07 until 2016-05-06.

First certification 2004

2013-05-07





DGA-ZM-58-95-00







GENTAS GENEL METAL SANAYI VE TICARET A.S.

Serpek Mevkii Mengen / BOLU / TURKIYE

EN 438-7

Harici Kullanımlar için Ağır Çalışma Şartlarında Yanma Dayanımlı EDF Exterior Use Heavy Duty Or Severe Use Grade Standard Laminate EDF

Dış duvarların ve tavanların (asma tavanlar dâhil) tamamlanması için HPL kompozit paneller/yanal paneller *High pressure decorative laminate (HPL) for external finishes*

UV ışınlarına ve çevresel etkilere (rüzgar,toz,kum,nem,asit yağmurları) maruz kalan kompaktlar Yanma dayanımlı

Areas requiring resistance against UV rays and environmental influence (wind, dust, sand, moisture, acid rain)
And Flame retardant property

DoP No.2 **0620**

KIWA Netherlands BV

Yangına Tepki / Reaction to Fire(EN 13501-1)

Yangına Dayanım / *Fire Resistance* Su Buharı Geçirgenliği / *Water Vapour Permeability* Yüzeyden Vidalı Tutturma / *Face* – *Screw Holding*

Ses Yalıtımı / *Direct Airbourne Sound Insulation*Eğilme Direnci / F*lexural Strength*Eğilme Modülü / *Flexural Moduls*Isı Dayanımı / *Thermal Resistance*Isıl Şoka Dayanım / *Thermal Shock Resistance*Kararlılık / *Durability*:

- Islak Şartlara Dayanım / **Resistance to Wet Conditions**

- Yoğunluk / **Density**

4 mm – 5.9 mm

B s2 d0

6 mm – 10 mm

B s1 d0 NPD

NPD

4 mm – 6 mm

1000 – 2000 N > 6 mm

> 6 mm 2000 – 4000 N

NPD

NPD 110,7 MPa 9834 MPa NPD

Başarılı / **Pass**

Başarılı / **Pass** 1,35 g/cm³





GENTAS GENEL METAL SANAYI VE TICARET A.S.

Serpek Mevkii Mengen / BOLU / TURKIYE

EN 438-7

Dış Cephe Dekoratif Kompakt EDS **Gentas Exterior Use Compact Grade EDS**

Dış duvarların ve tavanların (asma tavanlar dâhil) tamamlanması için HPL kompozit paneller/yanal paneller High pressure decorative laminate (HPL) for external finishes

UV ışınlarına ve çevresel etkilere (rüzgar,toz,kum,nem,asit yağmurları) maruz kalan kompaktlar Areas requiring resistance against UV rays and environmental influence (wind, dust, sand, moisture, acid rain)

DoP No.1

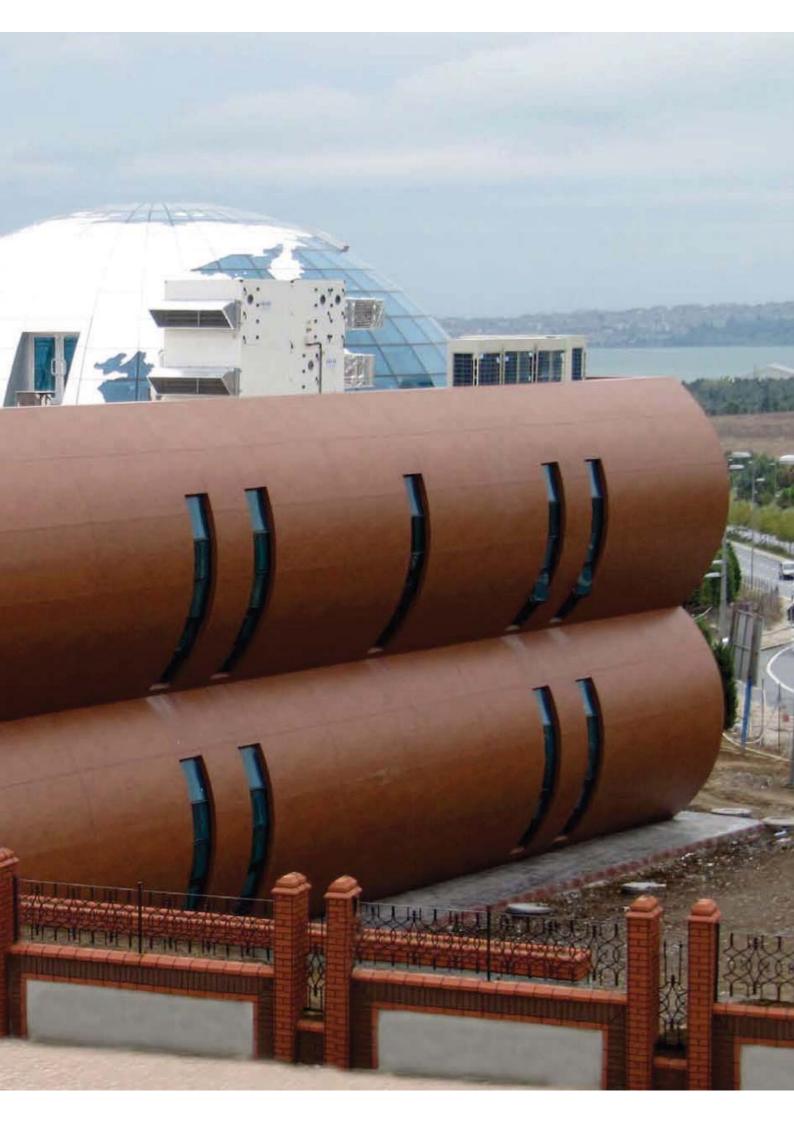
Yangına Tepki / Reaction to Fire(EN 13501-1)	4 mm – 10 mm
	C s2 d0
Yangına Dayanım / Fire Resistance	NPD
Su Buharı Geçirgenliği / Water Vapour Permeability	NPD
Yüzeyden Vidalı Tutturma / Face – Screw Holding	4 mm – 6 mm
•	1000 – 2000 N
	> 6 mm
	2000 – 4000 N
Yapıştırma Mukavemeti / Bonding Strength	1,6 MPa
Ses Yalıtımı / Direct Airbourne Sound Insulation	NPD
Ses Emilimi / Sound Absorbsion	NPD
Isı Dayanımı / Thermal Resistance	NPD
Kararlılık / Durability :	
Yüksek Sıcaklığa Dayanım / Resistance to Elevated Temperature	Başarılı / Pass

Yüksek Sıcaklığa Dayanım / Resistance to Elevated Temperature
 Yapıştırma Hattı Kalitesi / Glue-Line Quality

Yapıştırma Hattı Kalitesi / Glue-Line Qualit
 Suya Dayanım / Water Resistance

Formaldehit Salınımı / *Release of Formaldehyde* Pentaklorofenol Muhtevası / *Pentacholorophenol Content* Başarılı / **Pass**Derece 5 / **Rating 5**≤ 2 %
E1
< 5 ppm



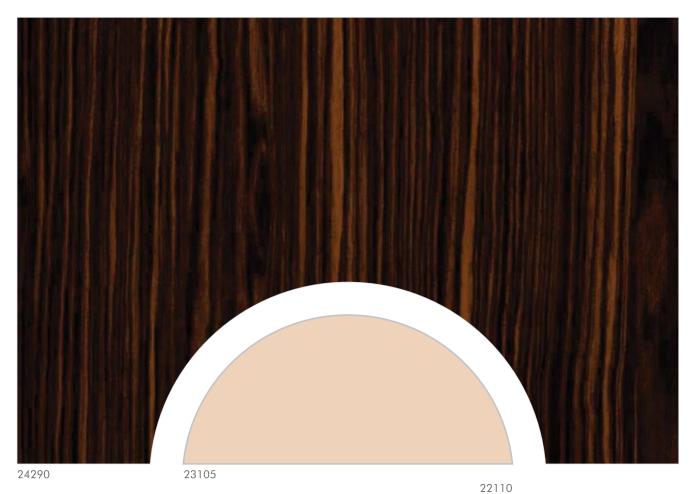


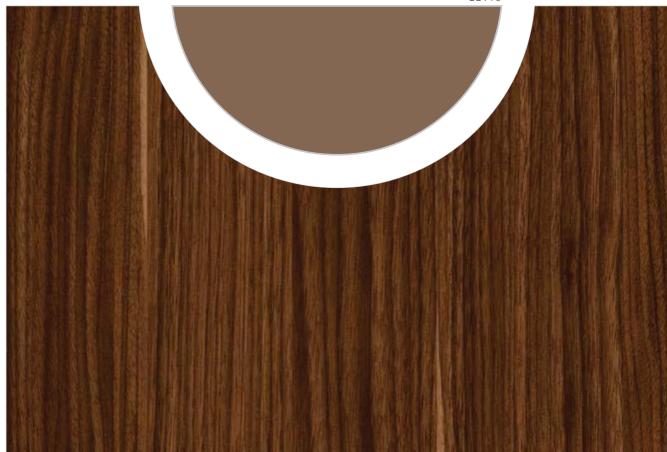






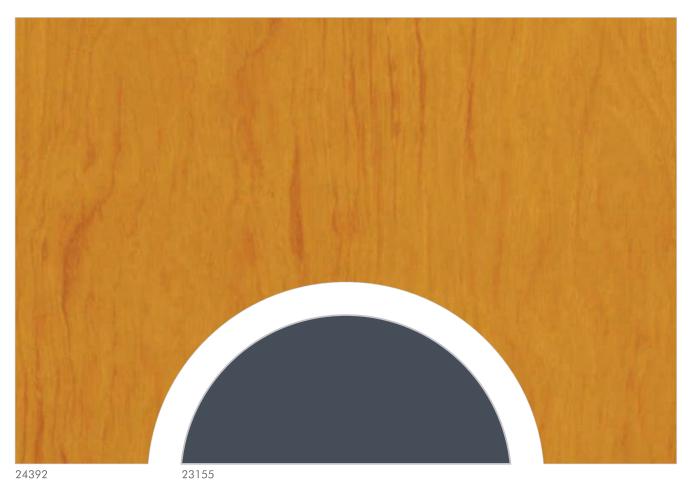


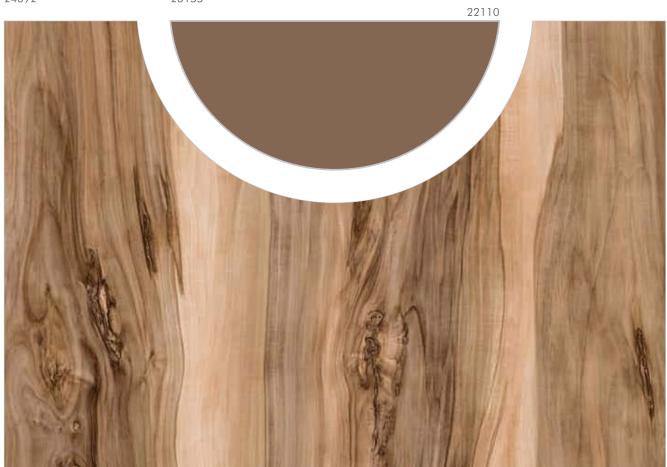


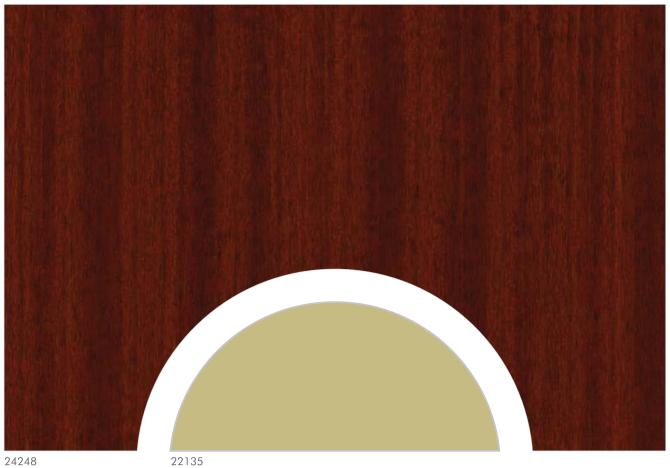


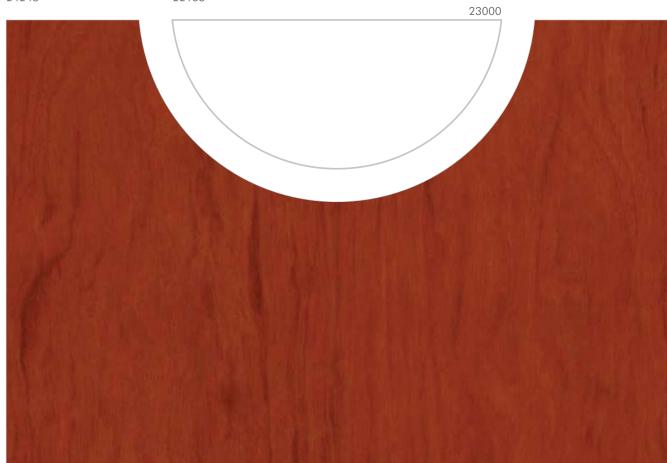


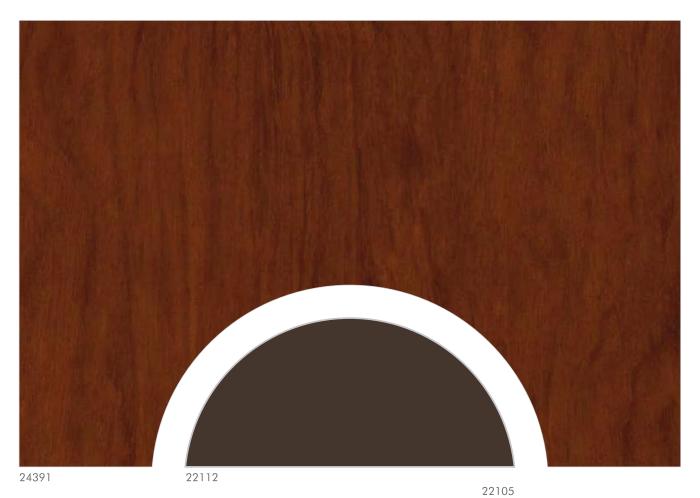










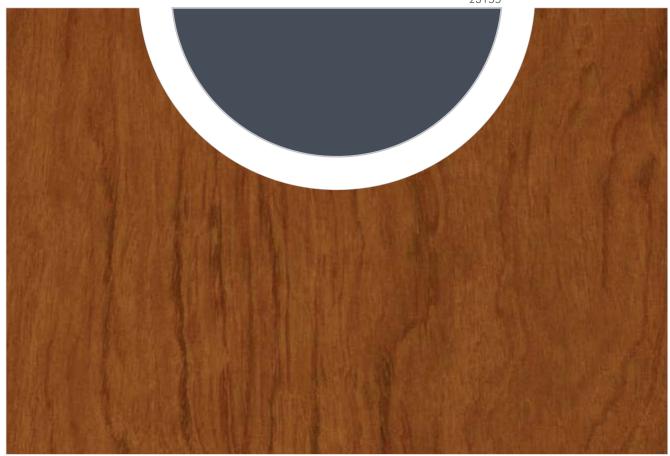








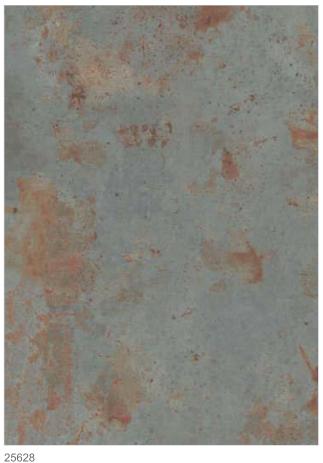














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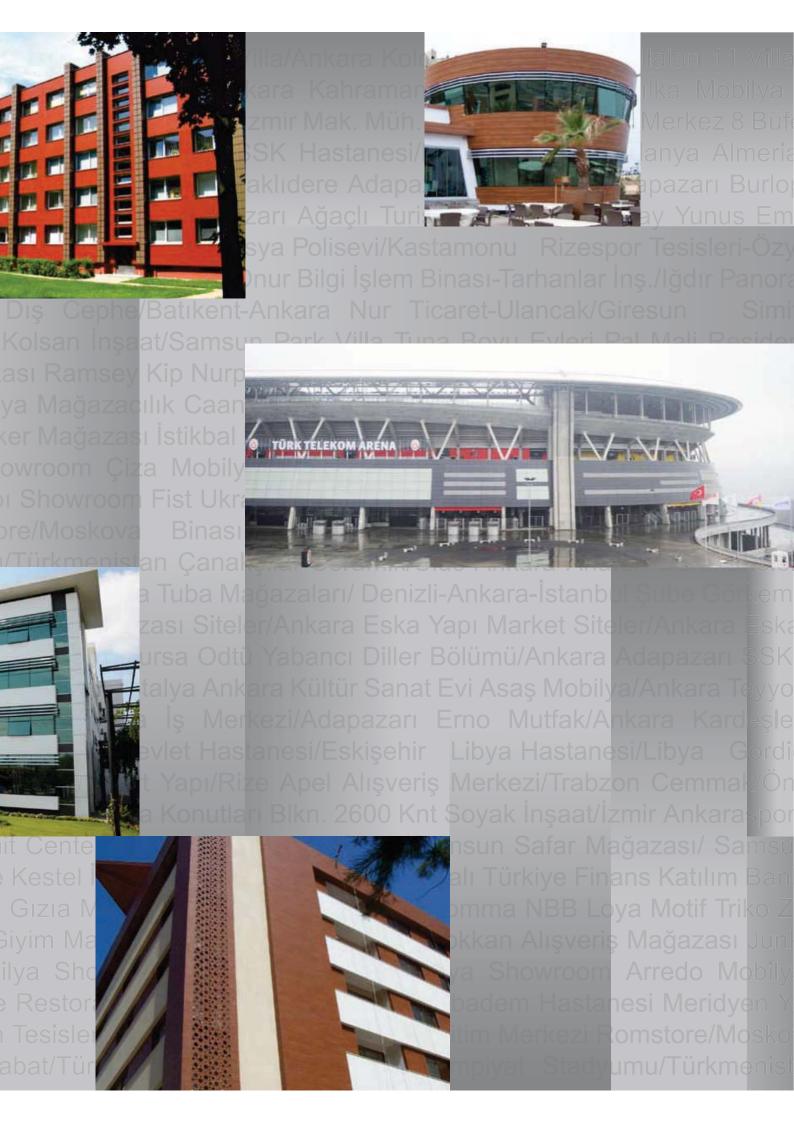
Alüminyum Dış Cephe/Adapazarı Ağaçlı Tur























































Hooking

It is the system that G-Ext® panels are mounted on aluminium infrastructure using hidden connecting clamps.

The dowel to be used fort his mounting operation will have a blind rivet from itself and conic shaped double split mounting space. The dowel and other parts must be made of stainless steel material.

The dowel is placed on the mounting space thoroughly which is prepared previously inside the wall siding panel and fixed carefully.

The recommended G-Ext $^{\scriptsize{(8)}}$ panel thickness is between 8 mm and 10 mm.

The aluminium infrastructure must be prepared so that no pressure must be applied by the infrastructure to the G-Ext® panel to be mounted later on the infrastructure.

While performing the connections (drilling the hole, placing the rivet head) a personnel who have been educated by the manufacturer must supervise the process.

This type of wall siding materials must be mounted by only educated expert personnel. It is required to cover the supporting profile connections of the infrastructure with panels. Bottom holes to be drilled must be drilled in the factory or under workshop conditions with special drilling equipment in situ.

The number of dowels to be used must be determined according to the engineering requirements of the building.

The dust in the hole after the drilling operation must be removed completely. The drilled nominal hole diameters must be in accordance with hole diameters.

The depth of the dowel:

Panels with 8 mm thickness 4 mm

Panels with 10 mm thickness 6 mm

Taps must be mounted in place using a tap instrument which is appropriate for this system.

The following controls must be carried out on the drilled holes and taps which have been mounted on place:

Form inspection must be carried out on the holes which are chosen randomly. The following measurements must be carried out according to the information supplied by the tap manufacturer and those measurements must be kept in recorded reports and documented accordingly.

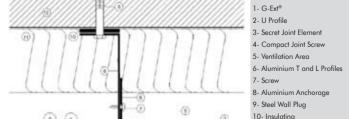
- Cylindrical drill hole diameter
- The diameter of the dowel which is cut from the bottom part
- The examination of the upper part of the drill hole and the depth of the hole

Eye examination is required to understand whether the tap is entered the hole opened with the drill in an appropriate manner or not. The side of the hole must sit on the clamp and must support itself strongly.

In terms of the performance of connections correctly; construction manager or his representative must collect and keep the evidences showing whether the mounting operation carried out correctly or not.

For application animation see www.g-ext.com.tr





11- Isolation Equipment

Hooking

Gluing

It is a system that gets a wider use world wide. G-Ext® Wall Siding Panels have a hidden syst

G-Ext® Wall Siding Panels have a hidden system whose joint points are not visible and it is glued with a glue which is in accordance with the aluminium infrastructure. Glue systems which are developed especially for wall siding bondings must be used.

This system is applied on the normally milled aluminium infrastructure. The bonding system is such a clean and easy to apply solution that can

be used for ventilated exterior walls, roof infrastructure, roof floor connections, and window frames installations and for many other areas.

The distance between glues to be applied must be calculated according to the engineering requirements of the structure. If otherwise stated in

applicable regulations:

For 6mm 45 cm – 50 cm

For 8mm, 55 cm - 60 cm

For 10mm 60 cm - 65 cm ranges can be advised.

Note: For some EU countries 6 mm Glueing system is not applicable and appropriate. Minimum thickness is chosen as 8 mm.

Before the Application

Things to be done before the application in aluminium structures:

- 1- Rub with a piece of abrasive paper having abrasive effect also,
- 2- Then clean thoroughly with the Cleaner (cellulosic cloth) the place which has been rubbed already.
- 3- Ventilation duration is 10 minutes.
- 4- Apply a thin layer of primer via a brush,
- 5- The ventilation duration must be at least 30 minutes and it may be at most a few hours.

Things to be done before the application in G-Ext panels:

- 1- Rub with a piece of abrasive paper having abrasive effect also,
- 2- Then clean thoroughly with the Cleaner (cellulosic cloth) the place which has been rubbed already.
- 3- Ventilation duration is 10 minutes
- 4- Apply a thin layer of primer via a brush, the ventilation duration must be at least 30 minutes and maximum duration may be only 8 hours
- 5- Clean the panels contaminated with earth or dust with the Cleaner.
- 6- All surfaces which glue will be applied must be free of oil, dry and clean.

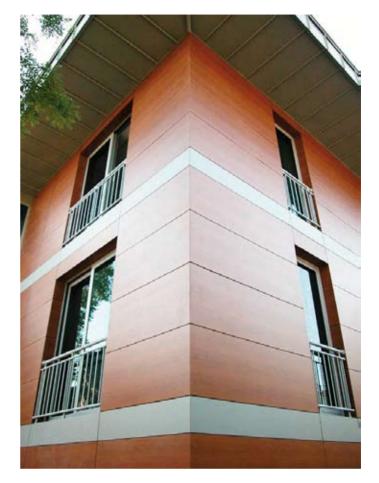
Glue:

- 1- Glue a installation band all along the vertical aluminium profiles. (Do not remove the film on the profiles yet).
- 2- Apply the glue: Apply the glue after the 5-6 mm from the glue installation band and profile side in a manner that you should establish triangles (the width and height of the triangles must be adjusted according to the application recommendations of the glue manufacturer).
- 3- To install the panel, remove the protective film layer on the installation band. After thoroughly aligning the panel with the installation band

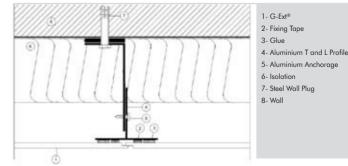
(Installation angle) bond the panel on the band and apply pressure on it thoroughly.

Important details:

- 1- You must protect your working area from weather conditions and dust.
- 2- The temperature in the working area must not be below 5°C and above Apply a thin layer of primer via a brush,
- 5- The ventilation duration must be at least 30 minutes and it may be at most a few hours.
- 3- Relative humidity of the environment must not be higher than 75%.
- 4- The construction material that will be glued must have a temperature of 3°C higher than the self temperature at least.
- 5- Infrastructure elements and parts must be organized to be kept in vertical direction.
- 6- While glue in the construction area, in each case, the construction permission received from construction Works authorities and working instructions of the glue manufacturer must be kept in ready situation.
- 7- Glue operation must be carried out by firms having personnel educated in the special subject.
- 8- Documentation in construction area is necessary. For application animation, see www.g-ext.com.tr



Gluing



Rivets on Aluminium

It is the most widely used method for Ventilated Exterior Cladding systems in the world.

It is a method of fixing G-Ext® Exterior Cladding Panels on aluminium infrastructure via appropriate rivets.

While establishing the aluminium infrastructure profile, national and international regulations must be taken into account. This aluminium infrastructure is composed of support profiles basically mounted vertically to the wall.

Due to the material characteristics of G-Ext® panels, plates are affected by weather conditions especially from temperature changes and humidity. As a result of these effects, minimal size changes can be observed. Regarding Gentaş G-Ext® Exterior Cladding Panels EN 438 – 2.17 (Size change 70 c and under 90% humidity) test and expansion test for 60 c (-30 c - +30 C) were carried out already. Values stated in G-Ext® Technical Data Page which are obtained as a result of the tests must be taken into account by the users.

Smoothly cut sides provide the balanced and smooth vision of a structure to which cladding is applied carefully. This cut may be carried out with Professional diamond cutters. While applying plates it is required to leave 8 mm gap at least taking size changes into account. In aluminium structures, you can use rivets with colours of panel colours.

Rivet shell: Al Mg 5

The resistance of rivet spindle against tension: 5,2 KN

Diameters of holes to be drilled in G-Ext® panels:

5,1 mm - 8 mm or required diameter

The diameter of the hole to be drilled in aluminium infrastructures: 5,1 mm

The distance between rivets must be calculated in accordance with the engineering requirements of the construction. Unless otherwise

recommended in applicable regulations

For 6mm 45 cm - 60 cm

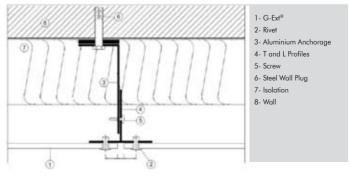
For 8mm 60 cm - 80 cm

For 10mm 70 cm - 90 cm range can be recommended.

For application animation see www.g-ext.com.tr



Rivets on Aluminium



Balconies and Railings

G-Ext® panels can be used in balconies, railings and fences. In addition they can be used in various different design manners also.

G-Ext® panels can be installed via using rivets or screws. All connecting parts to be used must be stainless steel.

Notwithstanding the material or system to be used, the infrastructure must be protected from the corrosion absolutely. The selection of the dowelling equipment and sizes of the panels to be installed for installing on the walls must be in accordance with the wind force and height in the area in which the construction is carried out.

It is important not to soak this material in water during construction and installation. While application panels must be dry.

Connection of G-Ext® panels with each other must be always in the same direction.

Sometimes G-Ext® may not be straight exactly. Such panels must be made completely straight before placing in their spaces. All panel connections to each other and to back parts must be carried out sufficiently thoroughly. Elastic parts may be placed in between the support in the background and panels or in between support parts. These parts must not be parts having a flex tolerance of more than ± 0.5 mm.

In terms of expansions or shrinkages that may occur in the material during installing G-Ext® panels, Technical Data Page of the material manufacturer must be taken into account.

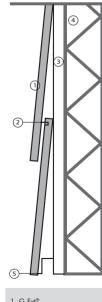


Siding

In general strips with a dimension of 12×175 x3000 mm are used. While a screw is used in 175 mm distances in vertical direction, in horizontal direction, screwing is carried out on points crossing with M profiles tied with a distance of at most 600 mm with a length of 3000mm.

With its timber view, it provides an aesthetic vision to facades using natural materials. On the other hand it is not deformed just like timber. It is resistant to heat, fire, humidity and wind. It does not decay. It has fixed and permanent sizes. It does not swell, crack, brake or hang down. It is a hidden installation system that can be applied for 4 or 6 mm thickness compact laminated panels and used in villa, seaside residences type structures in general for the purpose of renovation. Aluminium or timber infrastructure may be used. Riveting or special clips system is used in accordance with the infrastructure to carry out the installation. Either it may be cut from an entire plate in required modulation and we also can use siding compact panels with sizes of 3050x250x6 mm.





- 2- Steel Hook
- 3- Ventilation 4- Wall
- 5- Thickness Calibration Welt

Siding

