

teknik bilgiler
technical information

G-Ext®
Exterior Decorative Panels

SAKLAMA VE KULLANIM ŞARTLARI STORAGE AND TERMS OF USE

1. Depolama / Storage

1. Ambalajında tutun; yağmur, kar, kir, doğrudan güneş ışığından ve diğer ısı kaynaklarından koruyun.

1. Keep strapped and protected from rain, snow, dirt and direct sunlight and other heat sources.



2. Yatay ve simetrik istiflenmiş şekilde depolayın (palet başına maksimum 55 ünite). Uygun havalandırma sağlayın.

2. Store horizontally and symmetrically stacked (maximum of 55 units per pallet). Ensure good ventilation.



3. Önerilen depolama koşulları:
20/35 santigrat derece
%45 - %65 nem

3. Recommended storage conditions:
20/35 degrees Celsius
45% - 65% humidity



4. FIFO yöntemini kullanın (ilk giren ilk çıkar).

4. Use the FIFO method (first in - first out).



5. Plaka boyutları değişebildiğinden hava durumuna bağlı olarak, montaj alanında işlem öncesinde 72 saat bekletilip ortama uyum sağlamaları gerekir.

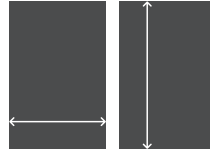
5. As the plates can change dimension, depending on the weather, they must be acclimated 72 hours before mounting/processing at the application area.



6. EN 438'e göre kompakt laminat 6 mm dış cephe panelleri için aşağıdaki toleranslar dikkate alınır:

Uzunluk/Genişlik
Kalınlık
Düzlemlik
Gönyeden Sapma

+10 mm/-0 mm
±/- 0.4 mm
5.0 mm/m
1.5 mm/m

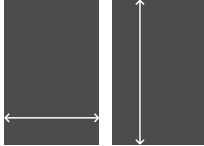


+10/-0

+10/-0

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+10/-0

+10/-0

6. Please note the following tolerances for 6 mm facade panels of compact laminate according to the EN 438:

Length/Width

Thickness

Curvature

Right Angle

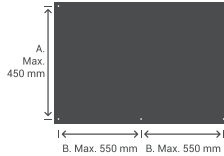
± 10 mm / -0 mm

±/- 0.4 mm

5.0 mm / m

1.5 mm / m

2. Delme / Drilling



1. 6 mm plaka kalınlığına sahip plakalardaki vidalar arasındaki maksimum mesafe:

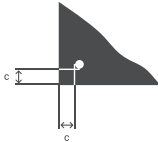
A) (2 vida deliği): 450 mm

B) (3 ya da fazla vida deliği): 550 mm

1. The maximum distance between the screws on plates with plate thickness of 6 mm:

A) (At 2 fittings): 450 mm

B) (At 3 or more fittings): 550 mm



2. Plakanın kenarı ile vida deliğinin kenarı arasındaki mesafe, minimum 20 mm ve 6 mm plaka kalınlığındaki plakalarda maksimum 60 mm'dir (C).

2. The distance between the edge of the plate and the edge of the screw hole shall be minimum 20 mm and maximum 60 mm on plates with plate thickness of 6 mm (C).



3. Delme kalınlığı, plakaların hareket edebilmesi için matkabin çapının 1,5 katıdır.

3. The drill thickness shall be 1.5 times the diameter of the drill, so that the plates can move.



4. Metal matkap kullanınız.

4. Use metal drill.

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Önemli Not – Kullanım Hakkında

Please Note – About Handling

1. Kullanım ve işlem sırasında koruyucu eldiven ve gözlük kullanılması tavsiye edilir.
 2. İşlem öncesinde ya da sırasında, dış cephe panellerinin yüzeylerinden koruyucu film tabakasını çıkarmayın. Dış cephe panellerinin her iki tarafındaki koruyucu filmi aynı anda çıkarın.
 3. Panelleri düz yukarı kaldırın ve plakaları birbirine doğru çekmeyin.
 4. Dış cephe panelleri, kullanılabacağı zaman nakledilmelidir.
1. It is recommended to wear protective gloves and goggles while handling and processing.
 2. Do not remove the protective film from the facade panels' surfaces before or during the processing. Remove the protective film on both sides of the facade panels simultaneously.
 3. Lift the panels straight up and do not haul the plates against each other.
 4. Panels should be transported, when they are used.

3. Kesme / Cutting

1. Testere bacağı karbürü kullanın.

1. Use the saw blade carbide.



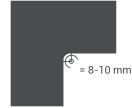
2. Testere ayarı ince kesim olmalıdır.

2. The saw settings must be fine cuts.



3. Köşelerde yaklaşık Ø9 çapa yuvarlatılmış kesikler.

3. Cut-outs at corners rounded to approximately Ø9.



4. Kenarlar, ihtiyaç duyulması hâlinde zımpara kağıdı ya da törpü yardımıyla çapak alma işlemine tabi tutulabilir.

4. The edges can advantageously be deburred with sandpaper or a file.



5. Zımpara kağıdı 100 kumluk olmalıdır.

5. Grit Abrasive Paper 100

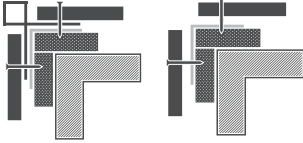
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4. Köşe Detayları / Corners

1. Köşe, alüminyumdan bir köşe profili ile tamamlanabilir.
1. Corner shall be completed with a corner profile of aluminum.

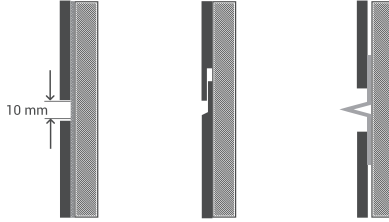


6. Yapıların köşelerindeki panel bağlantıları hem açık hem de kapalı derz olarak yapılabilir. Panellerde 8 mm kalınlık, köşe bağlantılarında metal köşe profillerin vida veya perçin ile sabitlenebilmesi için yeterli bir kalınlıktır. Köşe profilinin kullanıldığı uygulamalar pürüzsüz yüzeyin istendiği projelerdir.

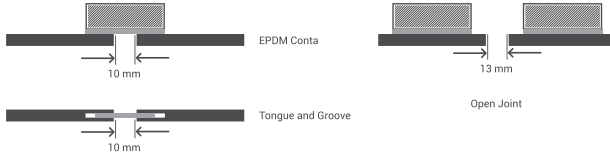
6. Panel connections at the corners of the structures can be made as both open and closed joints. The panels are 8 mm thick, sufficient to secure metal corner profiles with screws or rivets in corner connections. Projects where the corner profile is used are projects where the smooth surface is desired.

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5. Birleşim Detayları / Finish Details



1. DERZLER; paneller uzunlamasına ve enlemesine 1 metrede 2.5 mm hareket edebilecek şekilde montajları yapılmalıdır. Böylece paneller etrafında hareket edebilmeleri için uygun boşluk sağlanır. Derzlerin minimum genişliği, panel kalınlığının minimum yarısı kadar olmalıdır. Ayrıca derzler, nemin tutulması sonucu oluşacak zararı önlemek için gerekli havalandırma ve drenajı sağlayacak yeterlilikte olmalıdırlar. 10 mm'den büyük olan derzlerde, kaplamanın arka tarafına geçebilecek sinek ve haşereleri önlemek için derz arkasına ince ızgara sistemi uygulanmalıdır.
1. JOINTS; panels should be assembled in a way that they can move 2.5 mm at 1 meter both longitudinally and longitudinally. By this means, an appropriate space is provided so that panels can move around each other. The minimum width of the joints should be at least half of the panel thickness. In addition joints must be capable of providing the necessary ventilation and drainage to prevent the damage to be caused by the retention of moisture. In joints wider than 10 mm, a thin grid system should be applied behind the joint in order to prevent the flies and pests that can pass to the behind the flooring.



EPDM Conta

Tongue and Groove

Open Joint

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2. AÇIK DERZLER; panel bağlantıları açık yada dolgulu olabilir. Açık derzli sistemlerde kullanılan dikey ve yatay derzlere yağmur ve nem sızma ihtimaline karşı özellikle dikkat edilmelidir. İzolasyon malzemesi nemlendiğinde yalıtım değeri olması gereken standartların altına düşer. Bundan dolayı su geçirmez izolasyon malzemesi ve buna göre alt konstrüktür gerekmektedir.

KAPALI DERZLER; İambalı-zıvanalı (tongue and groove joint) ve bindirmeli (halved joint) derzler kapalı derzlerdir.

DERZ PROFİLLERİ; derzler sabitlenen metal, plastik ya da kauçuk profillerle kapatılabilirler. Profiller panellerin hareketine engel olmayacak ve sadece çekmeye çalışacak şekilde montajları yapılmalıdır.



MASTIKLI DERZLER; mastikli derzler panellerin hareketini engeller ve panel kenarlarının aşırı kirlenmesine yol açarlar. Bu tip derz doldurma uygulamaları kesinlikle önerilmeyen uygulamalardır.

2. OPEN JOINTS; panel connections may be open or filled. A Particular attention should be paid against the possibility of infiltrating rain and moisture to vertical and horizontal joints used in open joint systems. When the insulation material is moistened, insulating value drops down below the required standards. Therefore, waterproof insulating material and accordingly the sub-construction is required.

CLOSED JOINTS; tongue-and-groove and halved joints are closed joints.

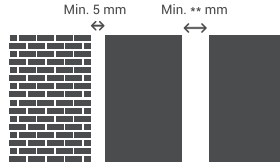
JOINT PROFILES; joints can be closed with fixed metal, plastic or rubber profiles. Profile must be assembled in a way that will not avoid the movement of the panels and will work by sliding.



MASTIC JOINTS; mastic joints avoid the movement of the panels and cause too much dirt on panel edges. These are definitely not recommended after such joint filling applications.

6. Montaj / Mounting

1. Bina ile G-Ext paneller arasındaki mesafe, en az 5 mm olmalıdır. HPL levhaları arasındaki mesafenin de, kullanılan HPL levhalarının kalınlığı ile aynı olması önerilmektedir. Panel kalınlığı 10 mm ise 2 panel arasında minimum 10 mm mesafe uygundur. Bu mesafe panel kalınlığına göre farklılık gösterir.
1. If the panel thickness is 10 mm it is suitable for a distance of 10 mm between 2 panels. This distance depends on the panel thickness.



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3. Panelleri düz yuları kaldırın ve plakaları birbirine doğru çekmeyin.
4. Dış cephe panelleri kullanılacağı zaman nakledilmelidir.
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7. Temizleme Talimatları / Cleaning Instructions

1. Aşağıdaki temizlik talimatı periyodik temizlik/bakım için ve kurulmadan sonra temizleme için uygundur (yapışkan artıklar).
2. Tüm mekanik sistem, yani döner fırçaları silecek vs. yüzey için uygun değildir ve yüzeyde kalıcı hasar oluşturabilir. Pamuk tabanlı, aşındırıcı olmayan bezler, temizlik sabununa (evde kullanılan herhangi bir sabun uygundur) batırılmış %5 çözelti yüzey temizliği için uygundur.
3. Normal suya batırılmış aşındırıcı olmayan bir bezle yüzeyi temizleyin ve kuruması için 5 dakika bekletin.
4. 5 dakika sonra, sabunlu suya batırılmış bezle ıslatın ve zarar vermeden yüzeyi temizleyin.
5. Temizlenmiş yüzeyi 5 dakika kurumaya bırakın.
6. Yüzeyi tekrar ıslak bezle temizleyin.
7. Yüzeyi temizlemek için kullanılmamalıdır.
 - 7.1 Sert baz çözümler: Amonyum Hidroksit, Sodyum Hidroksit, Sodyum Hipoklorit, Sodyum Klorit
 - 7.2 Sert asidik çözümler: Hidroklorik Asit, Sülfürik Asit, Nitrik Asit, Fosforik Asit, Asetik Asit, Hidroflorik Asit, Kromik Asit, Formaldehit, Formik Asit, Fenol
 - 7.3 Reaktifler: Gümüş Nitrat, Potasyum Permanganat, Ferrik (III) Klorür, Bakır Sülfat, İyodun Tentür
 - 7.4 Organik çözümler: Furfural, Aseton, Etil alkol, Metil Etil Keton, Diklorometane, Ethiasetat, n – Bütil Asetat n – Heksan, Metil Alkol, Metil İzobütil Keton, TetraHidroFuran (THF), Toluene, Tri Kloro Etilen, Ksilene, Metil Violet 2B
 - 7.5 Organik bileşikler: Mono Etilen Glikol (MEG) , Di Etilen Glikol (DEG)
1. The following cleaning instruction is suitable for periodic cleaning / maintaining and for cleaning after installation (Adhesive residue etc.)
2. Use Non abrasive cloth (Cotton Based / Vileda® Microclean Cloth) soaked with water / regular cleaning soap 5% solution (any household soap is suitable for this purpose) / All mechanical cleaning system, e.g. rotating brushes / wiper blades etc., are unsuitable for the surface and may cause a permanent damage to the decorative surface
3. Clean the surface with Non abrasive cloth soaked with regular water and leave the wet surface for 5 minutes in order to dry
4. After 5 minutes soak the wet cloth with the soap solution and clean the surface without damaging the surface
5. Leave the cleaned surface for 5 minutes in order to dry
6. Clean the surface again with wet cloth
7. Should not be used for cleaning the surface
 - 7.1 Hard base solutions: Ammonium Hydroxide, Sodium Hydroxide, Sodium Hypochlorite, Sodium Chloride
 - 7.2 Hard acidic solutions: Hydrochloric Acid, Sulphuric Acid, Nitric Acid, Phosphoric Acid, Acetic Acid, Hydrofluoric Acid, Chromic Acid, Formaldehyde, Formic Acid, Phenol

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- 7.3 Reagents: Silver Nitrate, Potassium Permanganate, Ferric (III) Chloride, Copper Sulphate, Iodine Tincture
7.4 Organic solvents: Furfural, Acetone, Ethyl alcohol, Methyl Ethyl Ketone, Dichloromethane, Ethylacetate, n – Butyl Acetate n – Hexane, Methyl Alcohol, Methyl Isobutyl Ketone, TetrahydroFurane (THF), Toluene, Tri Chloro Ethylene, Xylene, Methyl Violet 2B
7.5 Organic compounds: Mono Ethylene Glycol (MEG) , Di Ethylene Glycol (DEG)

8. Teknik Data Bilgileri

G-Ext® DİŞ CEPHE DEKORATİF PANELLERİ / EXTERIOR DECORATIVE PANELS

G-Ext® dış cephe compact panelleri; güneş ışığı, yağmur, asit yağmurları, rüzgar ve çeşitli iklim koşullarına karşı üstün dayanıklılık gösterir. Özel yüzeyi ve üretim teknolojisi sayesinde UV direnci ve renk stabilizasyonu sağlayarak; farklı üreticilerin ürettiği muadil ürünlerden daima bir adım önde gelir.

G-Ext® dış cephe dekoratif panelleri, Avrupa standartlarına uygun olarak üretilmektedir. Üstün dayanıklılığının yanı sıra tehlikeli maddeler içermez ve çevre dostudur.

G-Ext® dış cephe dekoratif panelleri, talep edilmesi hâlinde yangına karşı ekstra dayanım özelliği gösteren TSE EN 13501-1 standartları dahilinde B1 sınıfına tabi olarak üretilmektedir. G-Ext® dış cephe dekoratif panelleri, genel kullanım kılavuzunda belirtilen hükümlere uygunluk gösterilmesi halinde 10 yıl üretici garantisi altındadır.

G-Ext® shows superior endurance against strong weather conditions; direct sunlight, rain, acid rain, wind and friction. The special coating and curing technology ensures the UV resistance and provides colour stabilization.
G-Ext® always one step ahead from equivalent products of the competitors.

G-Ext® decorative panels has compliance certificate in accordance with European Standards. Therefore, they comply with entire product and environmental regulations. Besides its superior endurance, it does not contain hazardous materials and it is environment friendly.

G-Ext® decorative panels can be produced in B1 class which has extra fire-resistance feature if requested. G-Ext® decorative panels have 10 years of guarantee and an extensive life span, provided that conditions specified in general specification are followed.

G-Ext® panelleri konut, iş yerleri, iş merkezleri, bankalar, kamu binaları, spor salonları, stadyumlar, havalimanları ve hastaneler gibi her türlü bina ve yapıların dış cephe kaplamasında ve balkon uygulamalarında sıkça kullanılmaktadır.

G-Ext® is used for all types of exterior cladding on buildings and structures such as residents, workplaces, business centers, banks, public buildings, sport halls, stadiums, airports and hospitals as well as balcony coatings.

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EN Sınıflandırma		EDS, EDF
EN 438 6/7	Kalınlık	4 mm - 20 mm
	Boyutlar	1300x2800 mm / 1300x3050 mm Farklı ebat talepleriniz için müşteri temsilcisi ile iletişime geçiniz.

G-Ext® panellerin yüzeyinde, dünyada sayılı üreticiler tarafından kullanılan elektron bombardıman kütürü (EBC) teknolojisi kullanılmaktadır.

Özellikler	Test Metodu	Ölçülen Değer	Gereken Değer
Kalınlık	EN 438-2 Bölüm 5 4 mm Normal 6 mm Normal 8 mm Normal 10 mm Normal 13 mm Normal 18 mm Normal 22 mm Normal	Gerekli Kalınlığa Göre 4,1 mm 6,2 mm 8,1 mm 10,2 mm 13,4 mm 18,3 mm 22,3 mm	$3,0 \leq t < 5,0 \text{ mm} : \pm 0,3 \text{ mm}$ $5,0 \leq t < 8,0 \text{ mm} : \pm 0,4 \text{ mm}$ $8,0 \leq t < 12,0 \text{ mm} : \pm 0,5 \text{ mm}$ $8,0 \leq t < 12,0 \text{ mm} : \pm 0,5 \text{ mm}$ $12,0 \leq t < 16,0 \text{ mm} : \pm 0,6 \text{ mm}$ $16,0 \leq t < 20,0 \text{ mm} : \pm 0,7 \text{ mm}$ $20,0 \leq t < 25,0 \text{ mm} : \pm 0,8 \text{ mm}$ 25,0 $\leq t$: Anlaşma, Müşteri/Üreticiye göre
Yüzey Kalitesi	EN 438-2 Bölüm 4 Kır, Benek ve Benzer Yüzey Kusurları Lıf, Tüy ve Çizikler	$\leq 2 \text{ mm}^2/\text{m}^2$ $\leq 20 \text{ mm}^2/\text{m}^2$	$\leq 2 \text{ mm}^2/\text{m}^2$ $\leq 20 \text{ mm}^2/\text{m}^2$
Yoğunluk	ISO 1183 - 1	1,43	Min. 1,35 g/cm ³
Aşınma Dayanımı	EN 438-2 Bölüm 10 EDS/EDF	IP = 235 Rev. Aşınma Değeri = 400 Rev.	İlk Nokta $\geq 150 \text{ Rev.}$ Aşınma Değeri $\geq 350 \text{ Rev.}$
Çizilme Dayanımı	EN 438-2 Bölüm 25 EDS/EDF	> 6 N	Dokulu Yüzey Min. 3 N
Darbe Dayanımı	EN 438-2 Büyük Bilye Bölüm 21 EDS/EDF $t \geq 6,0 \text{ mm}$	 Çatlama Yok, 3,5 mm	 1800 mm Yükseklik: Çatlama Yok, 10 mm Maks.
80°C'de 20 Saat Yüzey Çatlama	EN 438-2 Bölüm 24 CGS/CGF	Seviye 4	Min. Seviye 4
180°C'de Kuru Isıya Dayanım	EN 438-2 Bölüm 16 CGS Dokulu Yüzey Bitirme	Seviye 5	Min. Seviye 4
Su Buharına Dayanım	EN 438-2 Bölüm 14 EDS/EDF Dokulu Yüzey Bitirme	Seviye 5	Min. Seviye 4

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EN Classification		EDS, EDF
EN 438 6/7	Thickness Range	4 mm - 20 mm
	Dimensions	1300x2800 mm / 1300x3050 mm Please contact the customer representative for your different size requests.

Surface of G-Ext® panels is enhanced by using electron beam curing (EBC) technology which is used by limited number of companies around the world.

Characteristics	Test Method	Tested Value	Required Value
Thickness	EN 438-2 Section 5 4 mm Normal 6 mm Normal 8 mm Normal 10 mm Normal 13 mm Normal 18 mm Normal 22 mm Normal	According to Required Thickness 4.1 mm 6.2 mm 8.1 mm 10.2 mm 13.4 mm 18.3 mm 22.3 mm	3.0 ≤ t < 5.0 mm : ± 0.3 mm 5.0 ≤ t < 8.0 mm : ± 0.4 mm 8.0 ≤ t < 12.0 mm : ± 0.5 mm 8.0 ≤ t < 12.0 mm : ± 0.5 mm 12.0 ≤ t < 16.0 mm : ± 0.6 mm 16.0 ≤ t < 20.0 mm : ± 0.7 mm 20.0 ≤ t < 25.0 mm : ± 0.8 mm 25.0 ≤ t : contract, Customer / By manufacturer
Surface Quality	EN 438-2 Section 4 Dirt, Punctures and Similar Surface Defects Fiber, Feather and Scratches	≤ 2 mm ² /m ² ≤ 20 mm ² /m ²	≤ 2 mm ² /m ² ≤ 20 mm ² /m ²
Density	ISO 1183 - 1	1.43	Min. 1.35 g/cm ³
Wear Resistance	EN 438-2 Section 10 EDS/EDF	IP = 235 Rev. Wear Value = 400 Rev.	İlk Nokta ≥ 150 Rev. Wear Value ≥ 350 Rev.
Scratch Resistance	EN 438-2 Section 25 EDS/EDF	> 6 N	Textured Surface Min. 3 N
Impact Resistance	EN 438-2 Big Ball Section 21 EDS/EDF t ≥ 6.0 mm	No Crack, 3.5 mm	1800 mm Height: No Crack, 10 mm Max
Surface Crack 80°C 20 Hours	EN 438-2 Section 24 CGS/CGF	Level 4	Min. Level 4
Resistance to Dry Heat at 180°C	EN 438-2 Section 16 CGS Textured Surface Finish	Level 5	Min. Level 4
Resistance to Water Vapor	EN 438-2 Section 14 EDS/EDF Textured Surface Finish	Level 5	Min. Level 4

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Özellikler	Test Metodu	Ölçülen Değer	Gereken Değer
Yüksek Sıcaklıkta Ebatlar Kararlılık (70°C, %90 Bağımlı nem)	EN 438-2 Bölüm 17 EDS/EDF t ≥ 5,0 mm	En = 0,18% Boy = 0,36%	En : Maks %0,3 Boy : Maks. %0,6
İklim Şokuna Dayanım	EN 438-2 Bölüm 19 EDS/EDF Görünüş Eğilme Mukavemeti İndeks Ds Eğilme Çarpma İndeks Dm	Seviye 5 0,98 0,97	Min. Seviye 4 Min. 0,95 Min. 0,95
İklim Değişikliklerine Dayanım	Gentaş Kurum İç Test ® Görünüş	Seviye 5	Min. Seviye 4
Eğilme Mukavemeti	EN ISO 178 EDS/EDF	110,7 Mpa	Min. 80 MPa
Eğilme Modülü	EN ISO 178 EDS/EDF	9834 MPa	Min. 9000 MPa
Çekme Mukavemeti	EN ISO 527 – 2 EDS/EDF	85 Mpa	Min. 60 Mpa
Doğrusal Isıl Genleşme Katsayısı (COTE)	ASTM D696-08®	6,0 x 10-6 mm/mm °C	—
Isıl İletkenlik	ASTM C 518	0.416 W/mK	—
Toplam Uçucu Organik Bileşik Emisyon	ASTM D5116	< 0,010 mg/m ² /hr	< 0,5 mg/m ² /hr

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Characteristics	Test Method	Tested Value	Required Value
Dimensional Stability at Elevated Temperature (70°C, 90% RH)	EN 438-2 Section 17 EDS/EDF t ≥ 5.0 mm	L = 0.18% W = 0.36%	L : Max. %0.3 W : Max. %0.6
Resistance to Climatic Shock	EN 438-2 Section 19 EDS/EDF Appearance Flexural Strength Index Ds Flexural Modulus Index Dm	Level 5 0.98 0.97	Min. Level 4 Min. 0.95 Min. 0.95
Resistance To Climatic Changes	Gentas Internal Test ⁽⁸⁾ Appearance	Level 5	Min. Level 4
Flexural Strength	EN ISO 178 EDS/EDF	110.7 Mpa	Min. 80 MPa
Flexural Modulus	EN ISO 178 EDS/EDF	9834 MPa	Min. 9000 MPa
Tensile Strength	EN ISO 527 – 2 EDS/EDF	85 Mpa	Min. 60 Mpa
Coefficient of Linear Thermal Expansion (COTE)	ASTM D696-08 ⁽⁹⁾	6.0 x 10-6 mm/mm °C	—
Thermal Conductivity	ASTM C 518	0.416 W/mK	—
Total Volatile Organic Compound Emission	ASTM D5116	< 0.010 mg/m ³ /hr	< 0.5 mg/m ³ /hr

SAKLAMA VE KULLANIM ŞARTLARI

STORAGE AND TERMS OF USE

Özellikler	Test Metodu	Ölçülen Değer	Gereken Değer
Yangın Sınıflandırması ⁽¹⁾	EN 13501-1 4.0 ≤ t < 5.9 mm 6.0 ≤ t < 10.0 mm ASTM E 84 – 10 06 mm – 10 mm BS 476 Part 7 : 1997 DIN 5510-2:2009-05 0.8 mm 1.2 mm	B S2 d0 B S1 d0 ERA – 14 – 095 22.10.2014 Sınıf A Sınıf 1 S4 ; SR2 ; ST2 S2 ; SR2 ; ST2	— — — —
Renk Farkı ⁽²⁾	ISO 7724 Gentaş Kurum İçî Standardı ⁽³⁾	Üni Renkler: ΔE ≤ 1.0 Basılı Tasarımlar: Görsel Fark Yok	— —
SO ₂ 'ye Dayanım ⁽⁴⁾	DIN 50018 50 Döngü	4 – 5 Gri Ölçek	—

Açıklamalar:

- (1) EN ISO 4892-1 ve 4892-2 test yöntemine dayalı.
- (2) EN ISO 4892-3 test yöntemine dayalı.
- (3) COTE testi +30°C ila -30°C arasında yapılmaktadır.
- (4) Gri Ölçek değerlendirilmesi EN 20105-A02'ye göre.
- (5) İklim değişikliklerine dayanım için Gentaş kurum içî test prosedürü yalnızca talep üzerine verilebilir.
- (6) "Asit Yağmuru" nemli ısı değişken ortam, 50 Döngü (talep üzerine test raporu verilebilir).
- (7) Müşteri talebi üzerine.
- (8) Renk farkı, parti büyüklüğüne göre Gentaş ile müşteri arasında mutabık kalındığı şekilde ana numuneden renk sapmasına işaret etmektedir (proje parti büyüklüğüne bakınız).
- (9) Basılı tasarımlarda renk farkının değerlendirilmesi için Gentaş kurum içî test yöntemi (Wood Grain/Soyut).

SAKLAMA VE KULLANIM ŞARTLARI

STORAGE AND TERMS OF USE

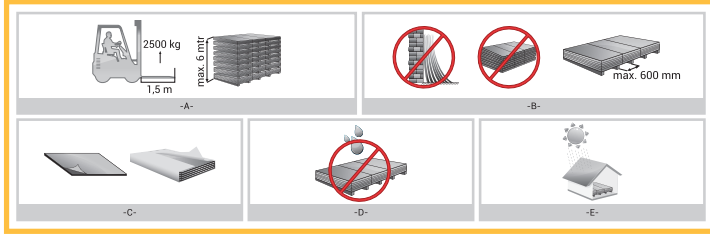
Characteristics	Test Method	Tested Value	Required Value
Fire Classification⁹⁾	EN 13501-1 4.0 ≤ t < 5.9 mm 6.0 ≤ t < 10.0 mm ASTM E 84 - 10 06 mm - 10 mm BS 476 Part 7 : 1997 DIN 5510-2:2009-05 0.8 mm 1.2 mm	B S2 d0 B S1 d0 ERA - 14 - 095 22.10.2014 Class A Class 1 S4 ; SR2 ; ST2 S2 ; SR2 ; St2	— — —
Color Difference⁸⁾	ISO 7724 Gentas Internal Standard ⁹⁾	Uni Colors: ΔE ≤ 1.0 Printed Designs: No Visual Difference	— —
Resistance to SO₂⁹⁾	DIN 50018 50 Cycles	4 – 5 Grey Scale	—

Instructions:

- (1) Based on test method EN ISO 4892-1 and 4892-2.
- (2) Based on test method EN ISO 4892-3.
- (3) COTE test is conducted between +30°C To -30°C.
- (4) Grey Scale assessment according to EN 20105-A02.
- (5) Gentas Internal test procedure for resistance to climatic changes is available upon request only.
- (6) "Acid Rain" damp heat alternating atmosphere , 50 cycles (test report upon request).
- (7) Upon customer request.
- (8) The color difference refers to the color deviation from the master sample as agreed between Gentas and the customer per batch size (refer to project batch size).
- (9) Gentas internal test method for evaluation of color difference in printed designs (Wood Grain / Abstract).

SAKLAMA VE KULLANIM ŞARTLARI STORAGE AND TERMS OF USE

9. Kompakt Panellerin Taşıma ve Depolama Şartları / Shipping and Storage Conditions for Compact Panels



Taşıma ve Depolama Şartları

- A. Forklift ile taşıma esnasında ağırlığa ve yükseklığe dikkat ediniz.
- B. Panelleri mutlaka palet üzerine yatay, zemine paralel ve hizalı şekilde yerleştiriniz. Panelleri dikey olarak yerleştirmeyiniz. Paneller ebatlandıktan sonra da aynı şekilde yerleştiriniz.
- C. Düz bir zemine taşınan paletlerin üzerinde bulunan metal çemberin açılarak ürünün rahatlamasını sağlayınız. Panellerin yüzeyinde koruyucu folyo bulunmaktadır, paneller yerine monte edilene kadar koruyucu folyo ile taşıyınız. Uygulama işlemi bittikten sonra en geç 24 saat içerisinde folyoyu sökünüz.
- D. Kuru ve temiz ortamlarda muhafaza ediniz. Nemli ortamlardan uzak tutunuz.
- E. Güneş ışığından ve UV ışınlarından koruyunuz. Panelleri kapalı bir ortamda muhafaza ediniz. Palet üzerindeki panellerin üzerini açık hava şartlarında branda, kâğıt, sunta, mdf vb. malzemelerle kapatmayınız.

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 stretching a tarp on.

Ayrıca Aşağıdaki Konulara da Dikkat Ediniz

- a. Paneller taşınırken aralarında su ve toz olmamasına dikkat ediniz. // b. Birbirlerine ve kenarlarının herhangi bir maddeye sürünmeden taşınmasını sağlayınız. // c. Paletler açıldıktan sonra en üstte kalan paneli ters çevirerek üzerine düz ve ağır bir cisim yerleştiriniz.

Please Be Careful About the Following Topics

- a. Mind there is no water or dust between them whilst handling. // b. Be careful not to 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.



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K77712/05



KOMO®
Product certificate with attestation
K77712/05



Issued 2021-07-01 Replaces K77712/04
Valid until Indefinite Dated 2018-09-15
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Gentaş Exterior Compact Laminates for façade cladding

Gentaş A. Ş.

STATEMENT BY KIWA

This quality statement for product certification with technical approval was issued on the basis of Evaluation Guideline 4101 part 1 "Gevulbekleding met panelen Deel 1: algemene eisen" in combination with part 4 "Gevulbekleding 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 system and product characteristics associated with Gentaş Exterior decorative panels are checked periodically and the performance of Gentaş Exterior decorative panels in their application as cladding have been reviewed in relation to the Dutch Building Decree (Bouwbesluit) 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 this quality statement,
 - The product requirements laid down in the BRL, and this quality statement,
- provided the Gentaş Exterior decorative panels have been marked with the KOMO® mark in the manner stated in this quality statement.
- The building components composed from the certified products may be relied upon to deliver a performance laid down in this quality statement and the building components meet the requirements of the Dutch Building Decree laid down this quality statement, provided:
 - conditions and technical specifications laid down this quality statement have been met;
 - the building components have been manufactured in accordance with the installation conditions laid down in this quality statement.

The essential characteristics, as defined in the applicable European standard, and the corresponding assessment of the quality system of these characteristics are not part of this statement.

Within the framework of this product certificate with technical approval no assessment is carried out on the composition and/or mounting in façades nor on the production of other products used for composition of the façades.

Ron Scheepers
Kiwa

*This product certificate with attestation is also included in the overview on the KOMO foundation website: www.komo.nl.
Users of this product certificate with attestation are advised to check whether it is still valid, for this purpose consult the website of Kiwa: www.kiwa.nl.*

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BUILDING DECREE

Assessed is:
• Quality system
• Product
• Single performance in the application
Periodic control

SERTİFİKA

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1.2 REQUIRED PRODUCT CHARACTERISTICS

The statements in Chapter 4 of this quality statement for Gentaş Exterior decorative panels as application as cladding façades are only valid if the panels meet the conditions in Table 2.

Table 2: Conditions product characteristics Performance Building Decree

Properties	Standard	Requirement for the application
Fire class	NEN-EN 13501-1	EDS ≥ 10 mm: $\geq B-s1, d0$ EDF ≥ 6 mm: $\geq B-s1, d0$
Resistance to fixings	EN 438-7, 4.5	≥ 2000 N
Bending strength:	EN 438-7, 4.8	
- flexural strength transverse and longitudinal direction	EN-ISO 178	≥ 80 MPa
- flexural modulus in transverse and longitudinal direction	EN-ISO 178	≥ 9000 MPa
Resistance to climatic shock:	EN 438-7, 4.12:	
- change in flexural strength, D_1	EN 438-2, 19	$\geq 0.80\%$
- change in MEF-flexural modulus, D_{10}	EN 438-2, 19	$\geq 0.80\%$
- change in appearance	EN 438-2, 19 & 29	$\geq$ rating 4
Durability,	BRL 4101-4, 5.2.4	
- resistance to wet conditions	EN 438-2, 15	Increase in mass: $\leq 5\%$ (EGS -EDS) $\leq 8\%$ (EGF -EDF)
- density	EN-ISO 1183-1	Change in appearance: $\geq$ rating 4 ≥ 1350 kg/m ³
Tensile strength:		
- transverse and longitudinal direction	EN-ISO 527-2	≥ 80 MPa

1.3 PRODUCT CHARACTERISTICS

The product meets the product requirements predefined in BRL 4101 part 4. In Table 3 the product characteristics that are part of this KOMO quality statement are listed. They comply with the values specified in the table.

Table 3: Other product characteristics

Properties	Standard	Requirement for the application
Tolerances on dimensions:		
- length	EN 438-2, 6	$+10 / -0$ mm
- width	EN 438-2, 6	$+10 / -0$ mm
- thickness: 5.0 mm $\leq t < 8.0$ mm	EN 438-2, 5	± 0.40 mm
8.0 mm $\leq t < 12.0$ mm		± 0.50 mm
12.0 mm $\leq t < 16.0$ mm		± 0.60 mm
16.0 mm $\leq t < 20.0$ mm		± 0.70 mm
20.0 mm $\leq t < 25.0$ mm		± 0.80 mm
- flatness: 6 mm	EN 438-2, 9	≤ 5.0 mm
8 mm		≤ 5.0 mm
10 mm		≤ 3.0 mm
12 mm		≤ 3.0 mm
- straightness of edges	EN 438-2, 7	≤ 1.5 mm/m
- squareness	EN 438-2, 8	≤ 1.5 mm/m
Dimensional stability at elevated temperature:	NEN-EN 438-2, 17	
- change in length		$\leq 0.20\%$
- change in width		$\leq 0.40\%$
Resistance to impact by large diameter ball (shatter resistance)		
- drop height 1800 mm, diameter print	NEN-EN 438-2, 21	≤ 10 mm
Resistance to SO ₂	DIN 50018 / NEN-ISO 105-A02	$\leq$ rating 4
Resistance to UV		
- blistering	BRL 4101-4, 5.3.3	none
- cracking	BRL 4101-4, 5.3.3	$\geq$ rating 5
- change in colour	NEN-ISO 105-A02	$\geq$ rating 3
- change in gloss	DIN 67530	$\leq 50\%$

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1.4 MARKING

The Gentaş Exterior decorative panels shall be marked with the KOMO wordmark or logo.

The design of this mark shall be:

KOMO



wordmark

logo

Application of the mark: the KOMO mark and mandatory information shall be applied to each panel and/or packing unit.

Mandatory information on the label:

- number of the quality statement K77712;
 - manufacturer's brand;
 - production code to provide traceability (date, machine and/or shift number);
 - nominal panel dimensions (length, width, thickness);
 - colour code of the design;
 - indication fire properties.
- The brand and the production date is placed on the product and / or packaging and / or delivery of documents.

1.5 SYSTEM SPECIFICATION

1.5.1 Substructure, general

The structure consists of vertical posts with a ventilation column of at least 20 mm deep between the panel and the underlying structure. In order to obtain a flat façade a proper alignment of the support structure is necessary. The center-to-center distance of the posts ranges from 400 to 800 mm. This depends on the thickness of the panel and the number of horizontal fixing points.

The substructure of the façade cladding system should be sufficiently durable and sufficiently strong and stiff, and are to be connected with the building structure in such a way, that the stability of the cladding system is ensured and the loads acting thereon can be transferred to the building structure.

Static calculations for the determination of the dimensioning and fixings of the panel and the sub-structure, shall be executed in accordance with EN 1991, based on the notional value of the:

- dead weight of the panels;
- wind load;
- loads due to differences in temperature;
- loads due to imposed deformations;
- shock loads.

In the determination of the deflection the wind load may be multiplied by 0.7.

Deflection of the panels may not exceed $1/200 \times \text{span} / \text{mounting distance}$.

Edge distances and the number of fixing points are stated in paragraph 2.2.2, tables 5 and 6.

General details are given in chapter 6 of this KOMO quality statement.

1.5.2 Substructure, timber

Constructions have to be made of rectangular timber (not plywood) which at least meets the following specifications:

1. The timber for the support structure shall have a minimum density of 400 kg/m³.
2. The timber shall be classified under durability class 1 or 2, according to NEN-EN 350-1: 1994 (Durability of timber and timber based products – durability of solid timber – Part 1). The required durability can be obtained by thermal or chemical modification of the timber up till the core of the timber. Any timber preservation methods and / or fire retardant treatments must meet the requirements as stated in BRL 0601 (Timber preservation), 0605 (Modified timber) and BRL 0602 (Fire retardant treatment of wood and wood products using the vacuum and pressure method).

The modified timber may not cause any damage to other parts of the supporting structure. With application of timber, modified according the vacuum/pressure method, additional measures shall be taken to avoid water form entering the core of the timber.

Remark

Processing of modified timber may cause a reduction in durability.

3. The timber can be classified in a strength class in accordance with NEN-EN 338.
4. The moisture content of the timber shall not exceed 18 %, determined according to NEN 5461. To prevent rotting of timber, necessary measures must be taken to prevent a permanent moisture load.
5. The timber may not have any active degradation caused by larvae, insects and/or fungi.
6. Soft wood shall at least satisfy quality class C in accordance with NEN 5466.

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Dimensions timber support structure

The timber support structure should be detailed in a way, that no ultimate limit state and serviceability limit state is exceeded during the reference period as a result of changes in the geometry.

Remark

In the determination of the size of the timber cross-section(s), the presence of a necessary ventilation column with a depth of at least 20 mm and thickness of the insulating layer if present, must be taken into account. Especially with thermally modified wood a reduced pull-out resistance of the screws must be taken into account. In that case it therefore may be necessary to apply thicker members.

Fasteners timber support structures

The timber support structure must be assembled with fixings that at least meet the requirements of the permissible deviations and basic requirements for class I according to NEN-EN 14592. The fasteners for timber substructures must be made in stainless steel, type 1.4401 (AISI 316 = A4). The fasteners for aluminium substructures must be made in stainless steel, type 1.4301 (AISI 304 = A2).

1.5.3 Blind fixing

With this system the Gentaş Exterior decorative panels are mounted on aluminum mounting structure using hidden connecting clamps.

The aluminum mounting structure must be detailed in a way that the ultimate limit state and serviceability limit state is not exceeded during the reference period. In order to reduce the risk of screws undoing, aluminum profiles shall have a thickness of at least 2.5 mm.

Remark

The strength and stiffness of the aluminum mounting structure shall be demonstrated mathematically and / or by dynamic wind resistance tests.

The dowel to be used for this mounting system 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 carefully placed on the mounting space on the inside of the wall siding panel.

The recommended panel thickness is between 8 mm and 10 mm. The aluminum structure must be prepared so that no pressure must be applied to the Gentaş Exterior panel by the infrastructure. While performing the connections (drilling the hole, placing the rivet head) personnel which has 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 structure with panels. Bottom holes must be drilled in the factory or under workshop conditions with special drilling equipment.

The number of dowels to be used must be determined according to the engineering requirements of the building. The dust in the hole left after drilling must be removed completely.

The nominal hole diameters drilled must be in accordance with hole diameters of the plugs used.

The depth of the dowel:

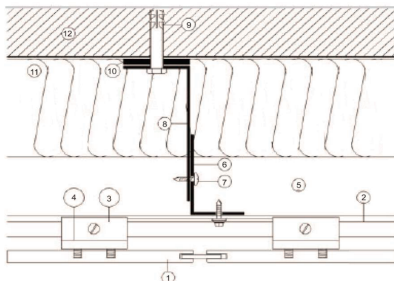
- Panels with 8 mm thickness 4 mm;
- Panels with 10 mm thickness 6 mm.

Plugs must be mounted in place using an instrument which is appropriate for this system. Random checks 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 manufacturer of the plugs 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 Plug has entered the drilled hole in an appropriate manner or not. The side of the hole must sit on the clamp and must support itself strongly.

The construction manager or his representative must collect and keep the evidences showing whether the mounting operation carried out correctly or not.



1. Gentaş Exterior Panel
2. U Profile
3. Secret Joint Element
4. Compact Joint Screw
5. Ventilation Area
6. Aluminum T or P Profiles
7. Screw
8. Aluminum Anchorage
9. Steel Wall Plug
10. Insulator
11. Insulation
12. Wall

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1.5.4 Blind fixing with rivets

It is the most widely used method for Ventilated Exterior Cladding systems in the world. It is a method of fixing Gentaş Exterior Cladding Panels on aluminum structure by means of appropriate rivets. While establishing the aluminum structure profile, national and international regulations must be taken into account. The aluminum support structure shall be detailed in a way that outermost limits or condition of use during the reference period will not be exceeded. To reduce the risk of unscrewing of fasteners, aluminium profiles shall have a thickness of at least 2.5 mm.

Remark

The strength and stiffness of the aluminum support structure has to be demonstrated by means of calculations and/or tests.

This aluminum structure is composed of support profiles basically mounted vertically to the wall. Due to the material characteristics of Gentaş Exterior panels, panels are affected by weather conditions especially from changes in temperature and humidity. As a result of these effects, minimal size changes can be observed. See also paragraph 1.3, table 3, dimensional stability at elevated temperature (changes in size at 70 °C and under 90% humidity). Values stated in Gentaş Exterior Technical Data Page must be taken into account by the users. Smoothly cut sides provide the balanced and smooth vision of a structure to which cladding is carefully applied. This cut may be carried out with Professional diamond cutters. When mounting panels it is required to leave at least an 8 mm gap taking size changes into account. In aluminum 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 Gentaş Exterior panels: 5,1 mm - 8 mm or required diameter.

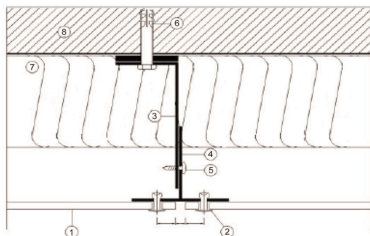
The diameter of the hole to be drilled in aluminium infrastructures: 5,1mm.

The distance between rivets must be calculated in accordance with the engineering requirements of the construction. Unless recommended otherwise, in applicable regulations the following range can be recommended:

- For 6 mm: 45 cm – 60 cm;

- For 8 mm: 60 cm – 80 cm;

- For 10 mm: 70 cm – 90 cm.



1. Gentaş Exterior Panel
2. Rivet
3. Aluminum Anchor
4. Aluminum T or P Profiles
5. Screw
6. Steel Wall Plug
7. Insulation
8. Wall

1.5.5 Mounting structure, aluminum

The aluminum mounting structure must be detailed in a way that the ultimate limit state and serviceability limit state is not exceeded during the reference period.

Remark

The strength and stiffness of the mounting structure of aluminum to be mathematically and / or by dynamic wind resistance tests are demonstrated.

Fasteners aluminum mounting structure

The manufacturer must determine the number of anchoring and fixing points, sizing and order of assembly. The attachments should be calculated and / or tested for wind forces (pull). The confirmation must be taken sufficient account of the material bound thermal length changes. The panels should as far as possible free of tension to be confirmed.

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1.5.6 Thermal insulation

Insulation in the shape of panels or blankets, whether or not featuring a coating, shall be processed in accordance with the manufacturers instructions or valid quality declaration granted by an Institute accredited by the Board of Accreditation (RVA). The type of insulation and thickness shall be tuned to the requirements by the Dutch Building Decree.

Remark

The insulation shall be sufficiently watertight. It is advised to use a mineral wool with a waterproof coating. When using open joints higher demands shall be set on the water tightness of the insulation. With mineral wool a heavier coating shall be applied with a prolonged resistance to UV radiation.

In case battens are used, a WBO-membrane can be applied. In this case the insulation does not have to have a coating unless required by the open time of the insulation.

1.5.7 Accessories

Sealing profiles of aluminium, plastic or EPDM-rubber for sealing joints between panels shall be mounted tight and in the correct place. Sealing profiles may not be stapled but must be attached by means of glue for example. Bars, drip rails water and so on must be provided with recesses.

2. PROCESSING

2.1 GENERAL

2.1.1 Transport

During transport of the Gentaş Exterior decorative panels, sturdy and flat pallets shall be used of a size that is at least the same as panels. To prevent scratching, panels must be lifted and not slid across underlying ones. During manual handling like loading and unloading, panels shall be lifted one by one.

2.1.2 Storage

Gentaş Exterior decorative panels shall be stored on flat surfaces to avoid warping of the panels.

During storage, panels shall be protected against moist, strong changes in temperature, pollution and damaging.

Panels should be stocked indoor in normal conditions between 45 and 70% ambient humidity and regular temperatures.

At the building site the panels shall be protected against moist rising from the ground. Panels preferably shall be stored horizontally, supported on the entire surface.

In case horizontal storage is not possible, than panels can be stored 'vertically' at an angle of 60-70° whereat the total surface will be supported.

In all cases the supporting surface shall be completely flat.

The top panel shall be stored with a protective sheet or board.

2.1.3 Processing instructions

Gentaş Exterior decorative panels shall be cut before use.

- Gentaş Exterior decorative panels can be machined in any shape of form with regular cutting equipment.

- It is recommended to use saws and chisels with carbide cutting edges.

- Panels must be cut with visible side facing upwards when using circular saws, downward with portable tools.

- When cutting panels to size, longer side of piece should coincide with the panel machine direction to ensure better panel stability.

- Preferably use machinery with fixed blades and moving tables.

- Use spacing papers or boards and make sure these do not contain splinters with reuse.

- Inside corners of, for example, openings shall have rounded edges with a minimum of 5 mm radius.

2.2 MOUNTING INSTRUCTIONS

2.2.1 General

The mounting system refers to panels which are screwed to a timber or aluminium sub frame by means of screws. Several mounting methods (visible and invisible) are possible.

2.2.2 Supporting structure

The constructor shall determine the amount of anchoring and fixing points, the dimension of the supporting structure and the following order of mounting. The mounting and fixing points shall be calculated on loads as mentioned in paragraph 1.5.1.

For determination of the fixing points of the panels, tables 5 and 6 may be used.

Adequate information on the used fasteners shall be available. Especially on allowable stress, the accompanying deformations and the behavior in time as a result of physical and chemical circumstances. In all cases, fasteners shall be corrosion proof.

The fasteners for facade cladding shall be of stainless steel, type 1.4301 (AISI 304 + A2). Changes in dimensions due to thermal changes shall be taken into account. For this reason a panel shall be fixed with one fixed point, preferably in the middle. Other fixing points shall be expansion points.

The fasteners for the fixed and expansion points will have to be pre-drilled with a drill conductor to realise the required expansion space.

In case of aluminium the holes in the panels and the supporting structure shall be pre-drilled at the same time by "gradually" shaped drills. In case of mounting with rivets a special rivet washer shall be used which makes sure that rivets are mounted sliding.

Thermal changes in sizes shall be adequately taken into account. See also table 3, dimensional stability at elevated temperature (changes in measurements at 70°C and 90% relative humidity). The panels shall be mounted free of stress as much as possible. To avoid deformation of the panels, over tightening of the screws shall be prevented.

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Screwed fixing points on timber members

RVS Torx-screw (see figure 1):

- Panel thickness: 6 up till 10 mm;
- Shaft diameter: 4.8 mm;
- Hole diameter: 8 mm in panel.

RVS mounting screw with nylon washer and covering cap (see figure 2):

- Panel thickness: 6 tot 10 mm;
- Shaft diameter: 4.8 mm;
- Hole diameter: 8 mm in panel.

Countersunk screws are not allowed.



Figure 1.



Figure 2.

Table 4: Required hole diameters

Screw type	Hole diameter
Self centering RVS Torx—of mounting screw	8 mm
Pan head screw Ø 4 mm or Ø 5 mm, length at least 35 mm, head diameter 11 mm maximal	1.5x diameter screw

Mounting distances

Mounting distances shall be determined on basis of maximum deflection of the panels and the minimum pull out resistance of the screw as used. The pull out resistance of a screw in an aluminum member is better. Additionally the strength of a rivet is higher.

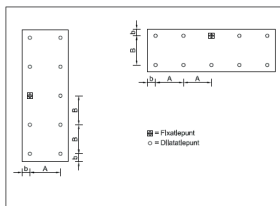


Figure 3: 2-point fixation

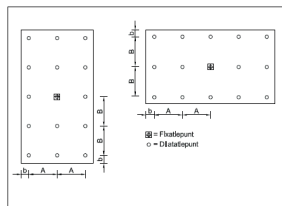


Figure 4: 3 or more point fixation

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For a 6 mm panel, in tables 5 and 6 the maximum distances of fixation A and B in relation to the application area are given (building height per wind fastness area and terrain category). These distances are based on a timber supporting frame in accordance with paragraph 1.5.2.

Table 5: Maximum mounting distances 2-point fixation (A, B in mm) in relation to areas of application (building height in m)

2-point fixation according figure 3									
Mounting distance ¹⁾		Wind area I			Wind area II			Wind area III	
A [mm]	B [mm]	coast [m]	unbuild [m]	build [m]	coast [m]	unbuild [m]	build [m]	unbuild [m]	build [m]
480	360	2	10	20	3	20	20	20	20
420	360	3	20						
360	360	6							
300	360	15							

Table 6: Maximum mounting distances 3 or more point fixation (A, B in mm) in relation to areas of application (building height in m)

3 or more point fixation according figure 4									
Mounting distance ¹⁾		Wind area I			Wind area II			Wind area III	
A [mm]	B [mm]	coast [m]	unbuild [m]	A [mm]	B [mm]	coast [m]	unbuild [m]	A [mm]	B [mm]
420	360	2	10	20	5	10	20	10	20
360	360	4	20		10	20		20	
360	300	10							
300	300								

1) The mounting distances mentioned above are based on a timber substructure with a minimum density of the timber of 400 kg/m³.

2.2.3 Ventilation

For a proper application of panels a good ventilation behind the panels is indispensable. In order to remove any water by evaporation and drainage behind panels and the underlying wall / insulation layer:

- An uninterrupted cavity with a depth of at least 20 mm behind the panels.
- Ventilation openings at the top and bottom of façade with area:
 - $\geq 20 \text{ cm}^2$ /linear meter for height up to 1 m;
 - $\geq 50 \text{ cm}^2$ /linear meter above 1 m;
- Nesting of rats and mice behind the façade must be prevented. Openings wider than 1 cm for joints, where the panels meet other structures or for ventilation shall be fitted with closable screens.

2.2.4 Instructions on joints

Open Joints

When using horizontal or vertical open joints, high demands on the quality of the insulation material are set. In case of mineral wool a heavier coating shall be applied. This shall have a prolonged resistance to moist, high wind loads and UV radiation. In case battens are used, a WBO-membrane can be applied. In this case the insulation does not have to have a coating unless required by the open time of the insulation.

Also additional demands shall be set on durability of the supporting structure. In case a timber supporting structure is used it shall be classified under durability class 1 or 2, according to NEN-EN 350-1: 1994 (Durability of timber and timber based products – durability of solid timber – Part 1).

Closed joints

A closed joint can be achieved by using various horizontal and vertical plastic or aluminium sealing profiles. Application of these profiles may not hinder the hygrothermal working of the panels.

Use of elastic kit for joints is not recommended since the may hinder the hygrothermal working of the panels. Furthermore the working life of the kit is limited and it may attract dirt more.

The type of seal used depends on how the panels are mounted.

2.3 REPAIRS

Repairs are only allowed by or under responsibility of the manufacturer.

2.4 MAINTENANCE

Areas of light dirt contamination can be cleaned with a towel, hot water or standard, non-abrasive cleaning agents. Areas of heavier dirt contamination may be cleaned with standard solvents. Always start by cleaning a small area first whilst observing any changes in appearance.

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3. PERFORMANCES

3.1 Building Decree

Nr	article/ sections	section	Limit/ determination method	Performance according to quality statement	Application notes
2.1	2.2 2.3 2.4; 1a, b, d en 2	General strength of the building structure	No collapse according: - NEN-EN 1990, - NEN-EN 1991 (own weight, - NEN-EN 1991-1-4 (wind), - NEN-EN 1991-1-5 (differences in temperature)	Suited for the application (situation and height building) Screw holding value ≥ 2000 N	Joints to be made in accordance with paragraph 2.2.4
2.8	2.57	Limitation of the occurrence of a fire risk situation	Fire class A1 according NEN-EN 13501-1	The non-flammability is not determined	
2.9	2.67 2.68; 1 tm 3	Limitation of the development of fire and smoke	The fire class and smoke class determined according to NEN-EN 13501-1 must be at least D respectively s2.	G-ext EDS, ≥ 10 mm : B-s1, d0 G-ext EDF, ≥ 6 mm: B-s1, d0	
2.10	2.84	Limitation of spread of fire	WBDO (Resistance to Fire Penetration and Flash-over) determined according to NEN 6068 is minimal 30 min.	The panels shall not be assumed to limit the spread of fire	Performance depends on total partition
3.1	3.2 3.3	Protection from external noise, new buildings	Typical sound-proofing determined between outdoors and residential area ≥ 20 dB(A) and between outdoors and residential room ≥ 18 dB(A)	Typical sound-proofing is not determined	Performance depends on total partition
3.5	3.21; 1 tm 3 3.22	Moisture proofing	Waterdicht, volgens NEN 2778 Temperatuurfactor > 0.5 of 0.65, volgens NEN 2778	Panels are watertight, joints are water resistant Temperature factor of the interior surface > 0.5 of 0.65	Performance depends on total partition
3.9	3.63	Limitation of the presence of hazardous substances and ionising radiation	The cladding contains no hazardous substances or ionising radiation	Panels meet requirements	
3.10	3.69	Protection from rats and mice	No openings wider than 0.01 m	No openings > 0.01 m	
5.1	5.3 5.4 5.5	Energy efficiency, new buildings	Heat resistance ≥ 3.5 m ² /KW, determined according to NEN 1068. Air volume flow rate of all the occupied areas, toilet and bathroom areas (0.2 m ³ /s, determined according to NEN 2686.	Contribution to heat resistance of panels with closed joints in cavity 0.3 W/m ² K according NEN-EN 438-7 Panels do not contribute to limit of air flow volume	Performance depends on total partition

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4. RECOMMENDATIONS TO INSTALLERS

After delivery of the products listed under "Technical specifications" check if:

- the delivery corresponds with the order;
- the marks and their application are correct;
- the products do not exhibit visible damage due to transport, etc.

After delivery of the products listed under "Installation" verify if they comply with the stated specifications.

If, given the above, you reject the delivery, then contact:

- GENTAŞ A.Ş.
- and, if necessary:
- Kiwa Nederland B.V.

Store, transport and install the materials in accordance with the provisions of "Installation".

Observe the installation conditions listed under "Performance".

In the context of this statement will be no quality control, instead of the accuracy of the performance of the essential characteristics.

The statements in this quality statement shall not be used to replace the CE marking and / or the relevant mandatory Declaration of performance.

SERTİFİKA CERTIFICATE



Certificate of
constancy of performance
0063-CPR-300140-1



Issued 2023-11-01 Replaces
First issued 2023-11-01 Page

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CERTIFICATE

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

G-Com UV+ cladding system

Scope of certificate: Kits for external wall cladding mechanically fixed

placed on the market under the name or trademark of

GENTAŞ A.Ş.

and produced in the manufacturing plant

Gentaş Dekoratif Yüzeyler San ve Tic A.Ş.

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

ETA 23/0530, issued on 07/08/2023

ETA 23/0538, issued on 07/08/2023

EAD 090062-00-0404

under system 1 for the performances set out in the ETA are applied and that the factory production control conducted by the manufacturer is assessed to ensure the **constancy of performance of the construction product**.

This certificate was first issued on and will remain valid as long as neither the ETA, the EAD, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Ron Scheepers
Managing director

Publication of this certificate is allowed.

Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Notified Body No. 0003



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G-Com UV+ cladding system

SCOPE

G-Com UV+ mechanically fixed cladding system for external wall claddings for uses subject to reaction to fire regulations with classes B and C.

- ETA 23/0538, Product family A:
The HPL cladding elements are mechanically fastened to the subframe through visible punctual fixings.
- ETA 23/0530, Product family B:
The cladding elements are mechanically fastened to the subframe by a special anchor placed in a drilled hole or in an undercut hole and anchored by mechanical interlock.

The cladding element alone is provided by the manufacturer.

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

EN-438



warringtonfire

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a touch to life

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