



TARGA

YÜKSELTİLMİŞ DÖŞEME SİSTEMLERİ
RAISED ACCESS FLOORING SYSTEMS

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Aspen Yapı ve Zemin Sistemleri A.Ş.

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Targa Yükseltilmiş Döşeme Sistemleri'nin sunduğu kalite, teknoloji ve güven; Aspen'in yıllara dayanan üretim tecrübesinin ve yükseltilmiş döşeme sistemlerindeki bilgi birikiminin sonucudur.

Targa Yükseltilmiş Döşeme Sistemleri modüler yapısıyla, altında oluşturulan alana müdahaleyi hızlı ve masrafsız şekilde sağlar; bu sayede mekana fonksiyonellik kazandırır.

Çeşitlenen kaplama tipleri sayesinde tasarımcıların her türlü isteğine cevap verebilen Targa ile günümüzün modern ticari alanları, hem kablo ve tesisatlardan uzak, sade ve estetik bir görüntüye; hem de her türlü modifikasyon ve yerleşim planı uygulamalarına imkan veren bir yapıya kavuşmaktadır.

Targa Yükseltilmiş Döşeme Sistemleri, altyapıyı oluşturan çelik ayaklar ve gerektiğinde kullanılan kuşaklar üzerine serbest bir şekilde yerleştirilen 600 x 600 mm panellerden oluşmaktadır.

Targa Raised Access Flooring superiority is the result of Aspen's years of fabrication experience and extensive knowledge in the field of interior fit-out.

With its modularity, Targa Raised Access Flooring provides fast, easy and convenient access to the space beneath the paneling. This drastically improves the usability and functionality of the area of installation.

Targa is able to satisfy the needs of all architects and designers thanks to its various top surface covering options and panel types, therefore providing a harmony between aesthetics and functionality.

Targa Raised Access Flooring Systems are formed of 600 x 600 mm panels laid freely on top of galvanized steel substructure. Galvanized steel stringers are used where needed and/or requested by the client.



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FARKINI HER ADIMDA HİSSET

T A R G A

FEEL THE DIFFERENCE WITH EVERY STEP

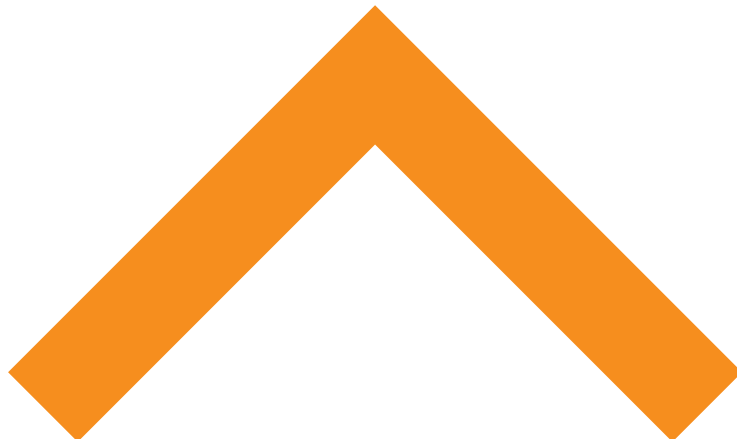


01

SUNTA ÖZLÜ PANELLER

CHIPBOARD CORE PANELS

- Enkapsüle Paneller / *Encapsulated Panels*
- Folyo Kaplı Paneller / *Foil Covered Panels*
- PVC Kaplı Paneller / *PVC Covered Panels*
- HPL Kaplı Paneller / *HPL Covered Panels*
- Doğal Ahşap Kaplı Paneller / *Natural Wood Covered Panels*



Enkapsüle Paneller *Encapsulated Panels*

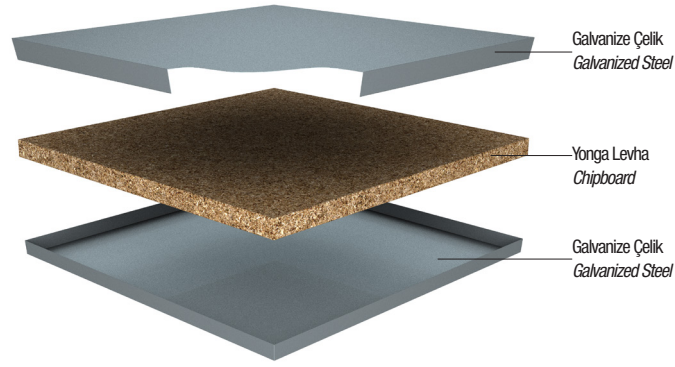
Targa Enkapsüle Paneller, üstü, altı ve kenarları galvanize çelik ile kaplanmış; 30 mm, P2 ya da P6 sınıfı yonga levhanın her tarafının galvanize çelik ile boğçalanmasıyla oluşturulmuştur. Yan taraflarının da çelik ile güçlendirilmiş olması sayesinde diğer tip panellere göre daha yüksek rutubet, yangın, yük ve kenar dayanımlarına sahiptir. Karo Halı ve LVT uygulamasına uygundur. Serbest döşenebilir.

Targa Encapsulated Panels are completely encased in galvanized steel on the top, bottom, and side surfaces. They are fabricated using 30 mm, P2 or P6 grade chipboard. Due to the side surfaces being also covered with galvanized steel, Encapsulated Panels provide exceptional moisture, fire and wear resistance. Panels can be installed independently, and are suitable for Carpeting and LVT overlay.



VİKO | İSTANBUL
VİKO | İSTANBUL





Panel Özellikleri (Enkapsüle Panel) / Panel Specifications (Encapsulated Panel)

Panel Modeli Panel Type	TG / EH	TG / EM
Panel Sınıfı Panel Class	Enkapsüle Panel Encapsulated Panel	Enkapsüle Panel Encapsulated Panel
Panel Boyutları Panel Dimensions	600 x 600 mm	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 31 mm	~ 31 mm
Üst Yüzey Top Surfaces	Galvanize Çelik Galvanized Steel	Galvanize Çelik Galvanized Steel
Alt Yüzey Bottom Surfaces	Galvanize Çelik Galvanized Steel	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	Galvanize Çelik Galvanized Steel	Galvanize Çelik Galvanized Steel
Panel Ağırlığı Panel Weight	~ 10,50 kg/panel	~ 9,50 kg/panel
Panel Özü Panel Core	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	30 mm 610-630 kg/m ³ P2 sınıfı yonga levha 30 mm 610-630 kg/m ³ grade chipboard
Yangın Sınıfı Fire Reaction	Bfl-s1	Bfl-s1
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1	Sınıf-1

Folyo Kaplı Paneller | Foil Covered Panels

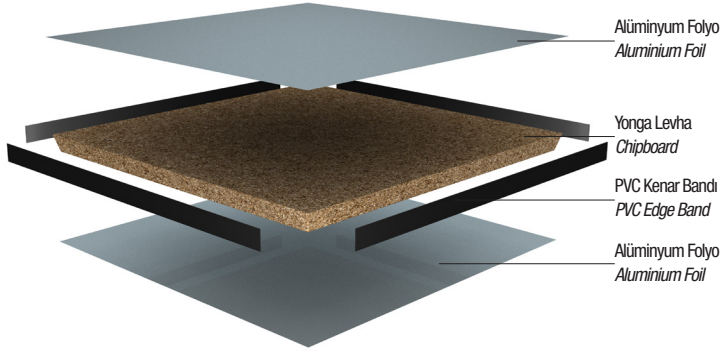
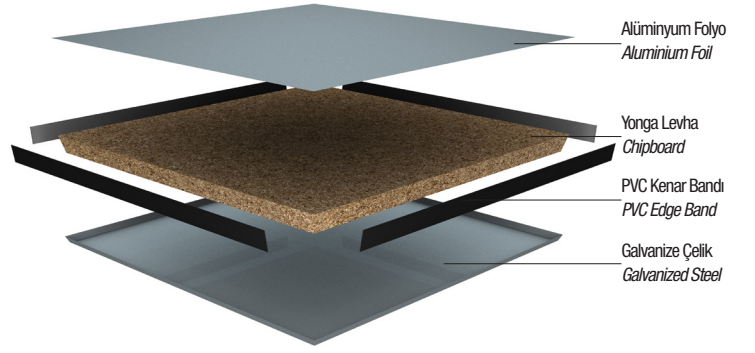
Targa Folyo Kaplı Paneller, üstü alüminyum folyo, altı ise alüminyum folyo ya da galvanize çelik ile kaplanmış, kenarları PVC kenar bandı ile çevrelenmiş; 30 mm / 38 mm P6 sınıfı yonga levhadan üretilmiştir. Karo Halı ve LVT uygulamasına uygundur. Serbest döşenebilir.

Targa Foil Covered Panels are fabricated using 30 mm / 38 mm P6 grade Chipboard. Top surface is covered with Aluminium Foil and bottom surface is covered with either Aluminium Foil or Galvanized Steel. Sides are covered with PVC edge band. Panels can be installed independently, and are suitable for Carpeting and LVT overlay.



RÖNESANS HOLDİNG | ANKARA
RÖNESANS HOLDİNG | ANKARA



TG / A30 - A38**TG / AT30 - AT38****Panel Özellikleri (Folyo Kaplı Panel) Panel Specifications (Foil Covered Panel)**

Panel Modeli Panel Type	TG / A30	TG / AT30	TG / A38	TG / AT38
Panel Sınıfı Panel Class	Folyo Kaplı Panel Foil Covered Panel	Folyo Kaplı Panel Foil Covered Panel	Folyo Kaplı Panel Foil Covered Panel	Folyo Kaplı Panel Foil Covered Panel
Panel Boyutları Panel Dimensions	600 x 600 mm	600 x 600 mm	600 x 600 mm	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 30 mm	~ 30,5 mm	~ 38 mm	~ 38,5 mm
Üst Yüzey Top Surfaces	Alüminyum Folyo Aluminium Foil	Alüminyum Folyo Aluminium Foil	Alüminyum Folyo Aluminium Foil	Alüminyum Folyo Aluminium Foil
Alt Yüzey Bottom Surfaces	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band
Panel Ağırlığı Panel Weight	~ 7,50 kg/panel	~ 8,50 kg/panel	~ 9,50 kg/panel	~ 10,50 kg/panel
Panel Özü Panel Core	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard
Yangın Sınıfı Fire Reaction	Bfl-s1	Bfl-s1	Bfl-s1	Bfl-s1
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1	Sınıf-1	Sınıf-1	Sınıf-1

PVC Kaplı Paneller | PVC Covered Panels

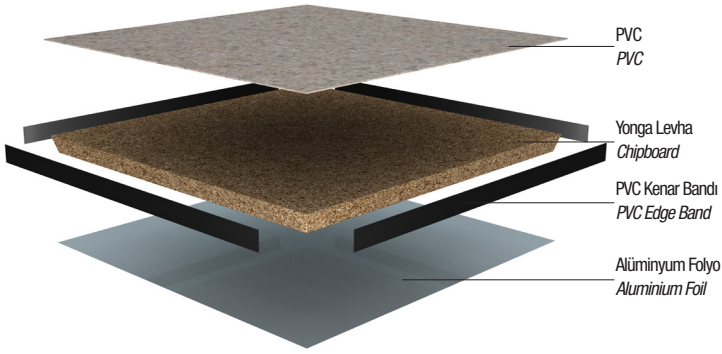
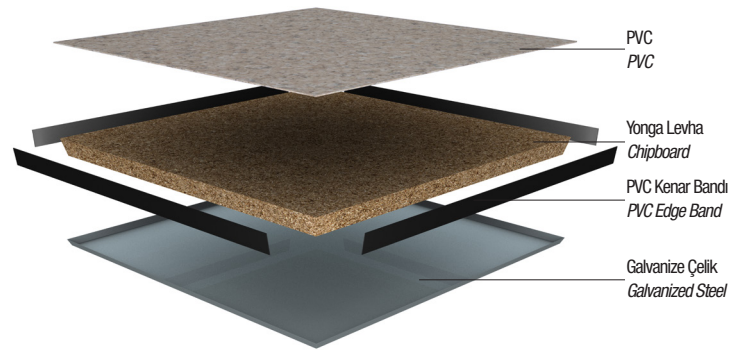
Targa PVC Kaplı Paneller, üstü PVC altı ise alüminyum folyo ya da galvanize çelik ile kaplanmış, kenarları PVC kenar bandı ile çevrelenmiş; 30 mm / 38 mm P6 sınıfı yonga levhadan üretilmiştir. PVC kaplama çeşidi iletken tercih edilirse, panel bakır pimler ile iletken hale getirilir. Serbest döşenebilir.

Targa PVC Covered Panels are fabricated using 30 mm / 38 mm P6 grade Chipboard. Top surface is covered with PVC, bottom surface is covered with either Aluminium Foil or Galvanized Steel. Sides are covered with PVC edge band. If conductive PVC is requested, the panels can be conductive with the insertion of copper rods. Panels can be installed independently.



KARAKÖY PLAZA | İSTANBUL
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TG / V30 - V38**TG / VT30 - VT38****Panel Özellikleri (PVC Kaplı Panel) Panel Specifications (PVC Covered Panel)**

Panel Modeli Panel Type	TG / V30	TG / VT30	TG / V38	TG / VT38	TG / VT130
Panel Sınıfı Panel Class	PVC Kaplı Panel PVC Covered Panel	PVC Kaplı Panel PVC Covered Panel	PVC Kaplı Panel PVC Covered Panel	PVC Kaplı Panel PVC Covered Panel	İletken PVC Kaplı Panel Conductive PVC Covered Panel
Panel Boyutları Panel Dimensions	600 x 600 mm	600 x 600 mm	600 x 600 mm	600 x 600 mm	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 30 mm	~ 32,5 mm	~ 40 mm	~ 40,5 mm	~ 32,5 mm
Üst Yüzey Top Surfaces	PVC PVC	PVC PVC	PVC PVC	PVC PVC	İletken PVC Conductive PVC
Alt Yüzey Bottom Surfaces	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band
Panel Ağırlığı Panel Weight	~ 8,50 kg/panel	~ 9,50 kg/panel	~ 10,50 kg/panel	~ 11,50 kg/panel	~ 10 kg/panel
Panel Özü Panel Core	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard
Yangın Sınıfı Fire Reaction	Bfl-s1	Bfl-s1	Bfl-s1	Bfl-s1	Bfl-s1
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1	Sınıf-1	Sınıf-1	Sınıf-1	Sınıf-1

HPL Kaplı Paneller | HPL Covered Panels

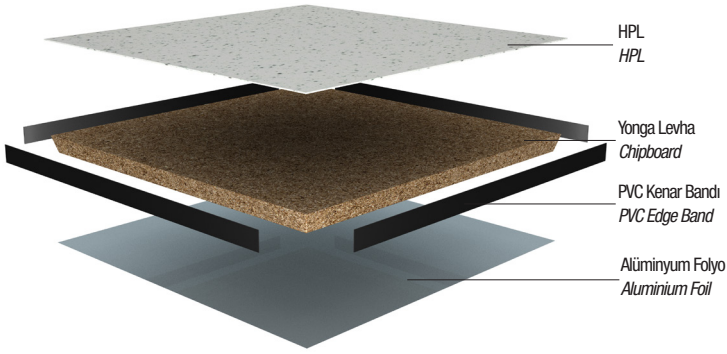
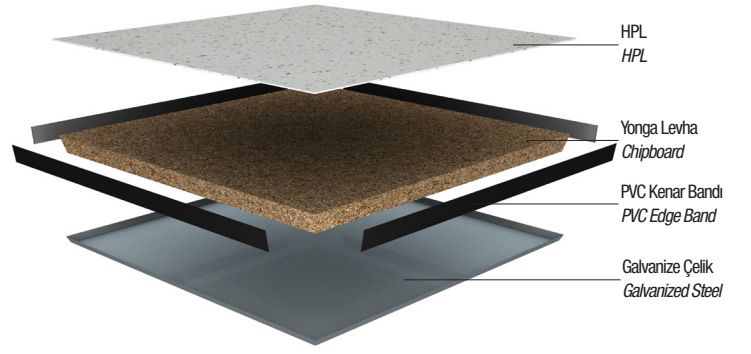
Targa HPL Kaplı Paneller, üstü 1 mm HPL, altı ise alüminyum folyo ya da galvanize çelik ile kaplanmış, kenarları PVC kenar bandı ile çevrelenmiş; 30 mm / 38 mm P6 sınıfı yonga levhadan üretilmiştir. Serbest döşenebilir.

Targa HPL Covered Panels are fabricated using 30 mm / 38 mm P6 grade Chipboard. Top surface is covered with 1mm HPL, bottom surface is covered with either Aluminium Foil or Galvanized Steel. Sides are covered with PVC edge band. Panels can be installed independently.



V PLAZA | İSTANBUL
V PLAZA | İSTANBUL



TG / H30 - H38**TG / HT30 - HT38****Panel Özellikleri (HPL Kaplı Panel) Panel Specifications (HPL Covered Panel)**

Panel Modeli Panel Type	TG / H30	TG / HT30	TG / H38	TG / HT38
Panel Sınıfı Panel Class	HPL Kaplı Panel HPL Covered Panel	HPL Kaplı Panel HPL Covered Panel	HPL Kaplı Panel HPL Covered Panel	HPL Kaplı Panel HPL Covered Panel
Panel Boyutları Panel Dimensions	600 x 600 mm	600 x 600 mm	600 x 600 mm	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 31 mm	~ 31,5 mm	~ 39 mm	~ 39,5 mm
Üst Yüzey Top Surfaces	Antistatik HPL Antistatic HPL	Antistatik HPL Antistatic HPL	Antistatik HPL Antistatic HPL	Antistatik HPL Antistatic HPL
Alt Yüzey Bottom Surfaces	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel	Alüminyum Folyo Aluminium Foil	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band	PVC Kenar Bandı PVC Edge Band
Panel Ağırlığı Panel Weight	~ 8,50 kg/panel	~ 9,50 kg/panel	~ 10,00 kg/panel	~ 11,50 kg/panel
Panel Özü Panel Core	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard	38 mm 660-680 kg/m ³ P6 sınıfı yonga levha 38 mm 660-680 kg/m ³ P6 grade chipboard
Yangın Sınıfı Fire Reaction	Bfl-s1	Bfl-s1	Bfl-s1	Bfl-s1
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1	Sınıf-1	Sınıf-1	Sınıf-1

Doğal Ahşap Kaplı Paneller | Natural Wood Covered Panels

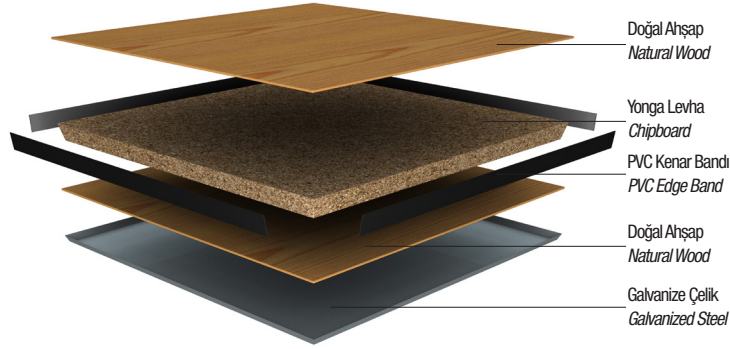
Targa Doğal Ahşap Kaplı Panellerin altı ve üstü doğal ahşap lamine papel ile kaplıdır. Kenarları PVC kenar bandı ile çevrelenmiş; 30 mm / 38 mm P6 sınıfı yonga levhadan üretilmiştir. Serbest döşenebilir.

Targa Natural Wood Covered Panels are fabricated using 30 mm / 38 mm P6 grade Chipboard. Top and bottom surfaces are covered with natural wood. Sides are covered with PVC edge band. Panels can be installed independently.



MERKEZ BANKASI | BURSA
CENTRAL BANK | BURSA




Panel Özellikleri (Doğal Ahşap Kaplı Panel) Panel Specifications (Natural Wood Covered Panel)

Panel Modeli Panel Type	TG / WT30
Panel Sınıfı Panel Class	Doğal Ahşap Kaplı Panel Natural Wood Covered Panel
Panel Boyutları Panel Dimensions	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 37.5 mm
Üst Yüzey Top Surfaces	Doğal Ahşap Natural Wood
1. Alt Yüzey 1. Bottom Surfaces	Doğal Ahşap Natural Wood
2. Alt Yüzey 2. Bottom Surfaces	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	PVC Kenar Bandı PVC Edge Band
Panel Ağırlığı Panel Weight	~ 10 kg/panel
Panel Özü Panel Core	30 mm 660-680 kg/m ³ P6 sınıfı yonga levha 30 mm 660-680 kg/m ³ P6 grade chipboard
Yangın Sınıfı Fire Reaction	Bfl-s1
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1

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FEEL THE DIFFERENCE WITH EVERY STEP

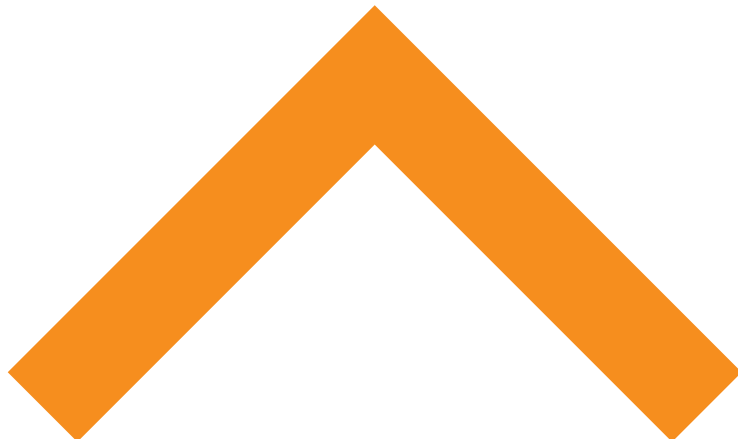


02

KALSIYUM SÜLFAT ÖZLÜ PANELLER

CALCIUM SULPHATE CORE PANELS

- Enkapsüle Paneller / *Encapsulated Panels*
- PVC Kaplı Paneller / *PVC Covered Panels*
- HPL Kaplı Paneller / *HPL Covered Panels*
- Doğal Ahşap Kaplı Paneller / *Natural Wood Covered Panels*
- Kaplamasız Paneller / *Bare Panels*

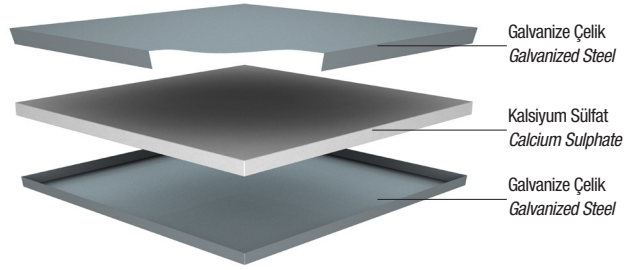


Enkapsüle Paneller *Encapsulated Panels*

Targa Enkapsüle Paneller, 30 mm, 1200 kg/m³ yoğunluklu kalsiyum sülfat panel özünün her tarafının galvanize çelik ile boğçalanmasıyla oluşturulmuştur. Yan taraflarının da çelik ile güçlendirilmiş olması sayesinde diğer tip panellere göre daha yüksek rutubet, yangın, yük ve kenar dayanımlarına sahiptir. Karo Halı ve LVT uygulamasına uygundur. Serbest döşenebilir.

Targa Encapsulated Panels are completely encased in galvanized steel on the top, bottom, and side surfaces. They are fabricated using 30 mm, 1200 kg/m³ density Calcium Sulphate. Due to the side surfaces being also covered with galvanized steel, Encapsulated Panels provide exceptional moisture, fire and wear resistance. Panels can be installed independently, and are suitable for Carpeting and LVT overlay.

TG / EHCS



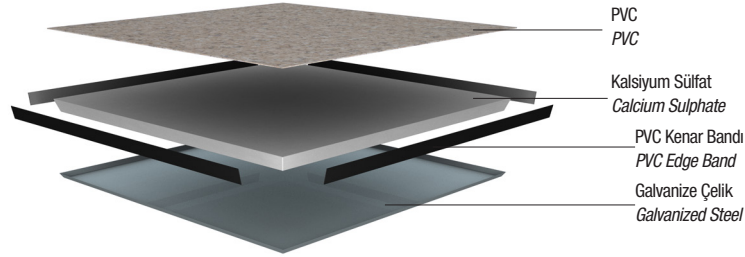
Panel Özellikleri (Enkapsüle Panel) <i>Panel Specifications (Encapsulated Panel)</i>	
Panel Modeli <i>Panel Type</i>	TG / EHCS
Panel Sınıfı <i>Panel Class</i>	Enkapsüle Panel <i>Encapsulated Panel</i>
Panel Boyutları <i>Panel Dimensions</i>	600 x 600 mm
Panel Kalınlığı <i>Panel Thickness</i>	~ 31 mm
Üst Yüzey <i>Top Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Alt Yüzey <i>Bottom Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Kenar Kaplama <i>Edge Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Panel Ağırlığı <i>Panel Weight</i>	~ 16,00 kg/panel
Panel Özü <i>Panel Core</i>	30 mm 1200 kg/m ³ Calcium Sulfate
Yangın Sınıfı <i>Fire Rating</i>	Afl-s1 / REI60r
Panel Boyutlarından Sapma Sınıfı <i>Dimensional Deviation Class</i>	Sınıf-1

PVC Kaplı Paneller PVC Covered Panels

Targa PVC Kaplı Paneller, üstü PVC altı galvanize çelik ile kaplanmış, kenarları PVC kenar bandı ile çevrelenmiş; 36 mm, 1200 kg/m³ yoğunluklu kalsiyum sülfat ile üretilmiştir. PVC kaplama çeşidi iletken tercih edilirse, panel bakır pimler ile iletken hale getirilir. Serbest dönebilir.

Targa PVC Covered Panels are fabricated using 36 mm, 1200 kg/m³ density Calcium Sulphate. Top surface is covered with PVC, bottom surface is covered with Galvanized Steel. Sides are covered with PVC edge band. If conductive PVC is requested, the panels can be conductive with the insertion of copper rods. Panels can be installed independently.

TG / VTCS36



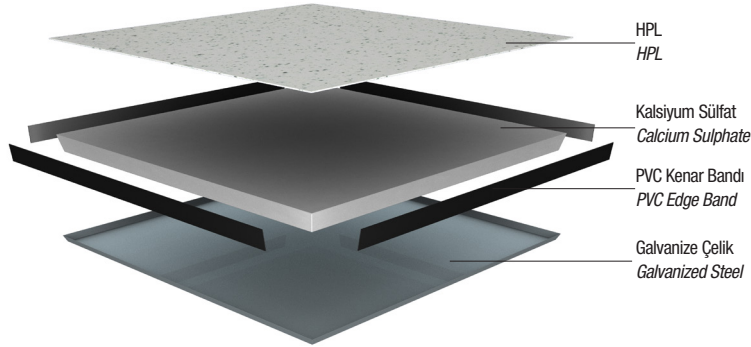
Panel Özellikleri (PVC Kaplı Panel) Panel Specifications (PVC Covered Panel)	
Panel Modeli Panel Type	TG / VTCS36
Panel Sınıfı Panel Class	PVC Kaplı Panel PVC Covered Panel
Panel Boyutları Panel Dimensions	600 x 600 mm
Panel Kalınlığı Panel Thickness	~ 38.5 mm
Üst Yüzey Top Surfaces	PVC
Alt Yüzey Bottom Surfaces	Galvanize Çelik Galvanized Steel
Kenar Kaplama Edge Surfaces	PVC Kenar Bandı PVC Edge Band
Panel Ağırlığı Panel Weight	~ 17,00 kg/panel
Panel Özü Panel Core	36 mm 1200 kg/m ³ Calcium Sulfate
Yangın Sınıfı Fire Reaction	Afl-s1 (Panel Özü / Panel Core)
Panel Boyutlarından Sapma Sınıfı Dimensional Deviation Class	Sınıf-1

HPL Kaplı Paneller *HPL Covered Panels*

Targa HPL Kaplı Paneller, üstü 1 mm HPL, altı ise alüminyum folyo ya da galvanize çelik ile kaplanmış, kenarları PVC kenar bandı ile çevrelenmiş; 36 mm, 1200 kg/m³ yoğunluklu kalsiyum sülfat ile üretilmiştir. Serbest dönebilir.

Targa HPL Covered Panels are fabricated using 36 mm, 1200 kg/m³ density Calcium Sulphate. Top surface is covered with 1mm HPL, bottom surface is covered with either Aluminium Foil or Galvanized Steel. Sides are covered with PVC edge band. Panels can be installed independently.

TG / HTCS36



Panel Özellikleri (HPL Kaplı Panel) *Panel Specifications (HPL Covered Panel)*

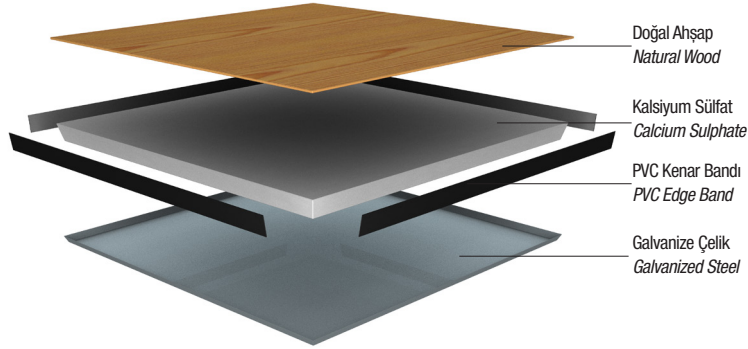
Panel Modeli <i>Panel Type</i>	TG / HTCS36
Panel Sınıfı <i>Panel Class</i>	HPL Kaplı Panel <i>HPL Covered Panel</i>
Panel Boyutları <i>Panel Dimensions</i>	600 x 600 mm
Panel Kalınlığı <i>Panel Thickness</i>	~ 37,50 mm
Üst Yüzey <i>Top Surfaces</i>	HPL
Alt Yüzey <i>Bottom Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Kenar Kaplama <i>Edge Surfaces</i>	PVC Kenar Bandı <i>PVC Edge Band</i>
Panel Ağırlığı <i>Panel Weight</i>	~ 17,00 kg/panel
Panel Özü <i>Panel Core</i>	36 mm 1200 kg/m ³ Calcium Sulfate
Yangın Sınıfı <i>Fire Reaction</i>	Afl-s1 (Panel Özü / Panel Core)
Panel Boyutlarından Sapma Sınıfı <i>Dimensional Deviation Class</i>	Sınıf-1

Doğal Ahşap Kaplı Paneller *Natural Wood Covered Panels*

Targa Doğal Ahşap Kaplı Paneller, 36 mm, 1200 kg/m³ yoğunluklu kalsiyum sülfat ile üretilmiştir. Üstü doğal ahşap lamine panel, altı galvanize çelik ile kaplanmıştır. Kenarları PVC kenar bandı ile çevrelenmiştir. Serbest dönebilir.

Targa Natural Wood Covered Panels are fabricated using 36 mm, 1200 kg/m³ density Calcium Sulphate. Top surface is covered with natural wood and the bottom surface is covered with galvanized steel. Sides are covered with PVC edge band. Panels can be installed independently.

TG / WTCS36



Panel Özellikleri (Doğal Ahşap Kaplı Panel) *Panel Specifications (Natural Wood Covered Panel)*

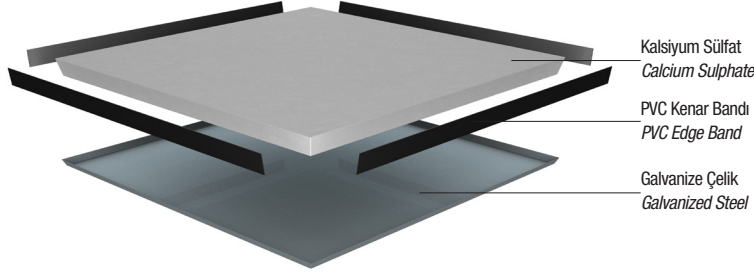
Panel Modeli <i>Panel Type</i>	TG / WTCS36
Panel Sınıfı <i>Panel Class</i>	Doğal Ahşap Kaplı <i>Natural Wood Covered</i>
Panel Boyutları <i>Panel Dimensions</i>	600 x 600 mm
Panel Kalınlığı <i>Panel Thickness</i>	~ 40 mm
Üst Yüzey <i>Top Surfaces</i>	Doğal Ahşap <i>Natural Wood</i>
Alt Yüzey <i>Bottom Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Kenar Kaplama <i>Edge Surfaces</i>	PVC Kenar Bandı <i>PVC Edge Band</i>
Panel Ağırlığı <i>Panel Weight</i>	~ 17,50 kg/panel
Panel Özü <i>Panel Core</i>	36 mm 1200 kg/m ³ Calcium Sulfate
Yangın Sınıfı <i>Fire Reaction</i>	Afl-s1 (Panel Özü / Panel Core)
Panel Boyutlarından Sapma Sınıfı <i>Dimensional Deviation Class</i>	Sınıf-1

Kaplamasız Paneller *Bare Panels*

Targa Kaplamasız Paneller, 30 mm, 1600 kg/m³ yoğunluklu kalsiyum sülfat ile üretilmiştir. Üstü kaplamasız, altı galvanize çelikle kaplıdır. Kenarlar ise PVC kenar bandı ile çevrelenmiştir. Karo Halı ve LVT uygulamasına uygundur. Serbest dönebilir.

Targa Bare Panels are fabricated using 30 mm, 1600 kg/m³ density Calcium Sulphate. Top surface is bare and bottom surface is covered with galvanized steel. Sides are covered with PVC edge band. Panels can be installed independently, and are suitable for Carpeting and LVT overlay.

TG / BTCS30



Panel Özellikleri (PVC Kaplı Panel) | *Panel Specifications (PVC Covered Panel)*

Panel Modeli <i>Panel Type</i>	TG / BTCS30
Panel Sınıfı <i>Panel Class</i>	Kaplamasız Panel <i>Bare Panel</i>
Panel Boyutları <i>Panel Dimensions</i>	600 x 600 mm
Panel Kalınlığı <i>Panel Thickness</i>	~ 30,5 mm
Üst Yüzey <i>Top Surfaces</i>	Kaplamasız <i>Bare</i>
Alt Yüzey <i>Bottom Surfaces</i>	Galvanize Çelik <i>Galvanized Steel</i>
Kenar Kaplama <i>Edge Surfaces</i>	PVC Kenar Bandı <i>PVC Edge Band</i>
Panel Ağırlığı <i>Panel Weight</i>	~ 20,00 kg/panel
Panel Özü <i>Panel Core</i>	30 mm 1600 kg/m ³ Calcium Sulfate
Yangın Sınıfı <i>Fire Reaction</i>	Afl-s1
Panel Boyutlarından Sapma Sınıfı <i>Dimensional Deviation Class</i>	Sınıf-1

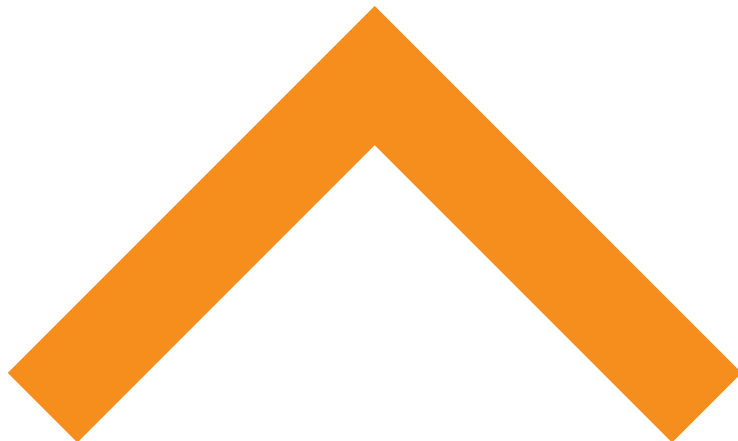


03

ALTYAPI SİSTEMLERİ

SUBSTRUCTURE SYSTEMS

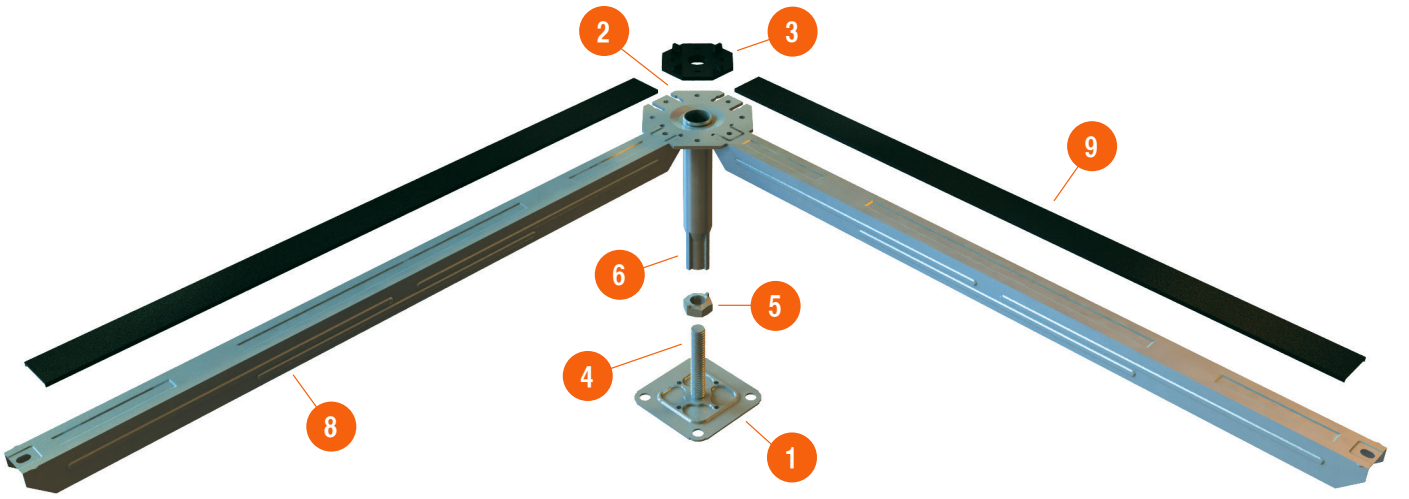
- > Ayak Sistemleri / *Pedestal Systems*
- > Kuşak Sistemleri / *Stringer Systems*
- > Payanda Sistemleri / *Cross-Brace Systems*



Altyapı Sistemleri Substructure Systems

Yükseltilmiş Döşeme Panelleri, doğrudan taşıyıcı olan, paslanmaya karşı çinko kaplı çelik ayaklar ve kuşaklar (isteğe bağlı) üstüne yerleştirilmektedir. Ayaklar beton zemine poliüretan esaslı özel tutkal ile yapıştırılmaktadır. Kuşak kullanımı, 25 cm'den büyük bitmiş yüksekliklerde zorunludur. Uygulanabilen yükseklik, panel hariç 5 cm - 100 cm aralığındadır. Payanda kullanımı 80 cm'den büyük bitmiş yüksekliklerde zorunludur. Ayak başlık sacı MG'de 2 mm iken HG'de 3 mm'dir.

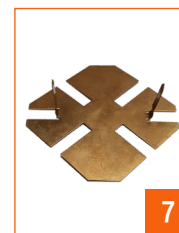
Raised Access Flooring panels are installed on top of zinc coated corrosion resistant pedestals and stringers (where needed). The pedestals are fastened to the concrete slab using a polyurethane based adhesive. Pedestals are available in heights ranging from 5 cm to 100 cm with full adjustability in between. Stringers are to be used for heights over 25 cm and cross-braces are to be used for heights over 80 cm. Pedestal head thickness is 2 mm for MG, and 3 mm for HG substructure systems.



ALTYAPI ÖZELLİKLERİ SUBSTRUCTURE SPECIFICATIONS

1	Ayak Tabanı / Pedestal Base	: 90 X 90 mm Galvanize Çelik / 90 X 90 mm Galvanized Steel
2	Ayak Başlığı / Pedestal Head	: 90 X 90 mm Galvanize Çelik / 90 X 90 mm Galvanized Steel
3	Başlık Lastiği / Head Gasket	: 3 mm Plastik Conta / 3 mm Plastic Gasket
4	Tij / Threaded Rod	: M14 / M16
5	Somun / Nut	: Tırnaklı M14 - Kilitleme Somunlu M16 / Notched M14 - M16 with Locking Nut
6	Boru / Pipe	: Galvanize Çelik 1,5 mm Kalınlık, 25,4 mm Çap / 1,5 mm Thick Galvanized Steel, 25,4 mm Diameter
7	İletken Başlık / Conductive Plate	: İletken Uygulamalar İçin Başlık Lastiği Aksesuarı / For Conductivity, Head Gasket Accessory
8	Kuşak / Stringer	: 0,80 mm Galvanize Çelik, 25 x 25 x 25 Mm / 0,80 mm Galvanized Steel, 25 x 25 x 25 mm
9	Kuşak Lastiği / Stringer Gasket	: 2 mm Plastik Conta / 2 mm Plastic Gasket
10	Kuşak Vidası / Stringer Screw	: Kuşak Aksesuarı / Stringer Accessories
11	Payanda / Cross-Brace	: 5 mm Kalınlık Galvanize Çelik Altyapı Aksesuarı / 5 mm Thick Galvanized Steel Substructure Accessories

Clip-in Profil / Clip-in Profil



AYAK SİSTEMLERİ PEDESTAL SYSTEMS	PANEL HARİÇ MİNİMUM YÜKSEKLİK (CM) MINIMUM HEIGHT WITHOUT PANEL (CM)	PANEL HARİÇ MAKSİMUM YÜKSEKLİK (CM) MAXIMUM HEIGHT WITHOUT PANEL (CM)
MG / HG 5- 7 Ayak Sistemleri / MG / HG 5 - 7 Pedestal Systems	5	7
MG / HG 6- 9 Ayak Sistemleri / MG / HG 6 - 9 Pedestal Systems	6	9
MG / HG 8- 12 Ayak Sistemleri / MG / HG 8 - 12 Pedestal Systems	8	12
MG / HG 10- 14 Ayak Sistemleri / MG / HG 10 - 14 Pedestal Systems	10	14
MG / HG 12 - 17 Ayak Sistemleri / MG / HG 12 - 17 Pedestal Systems	12	17
MG / HG 15 - 20 Ayak Sistemleri / MG / HG 15 - 20 Pedestal Systems	15	20
MG / HG 18 - 23 Ayak Sistemleri / MG / HG 18 - 23 Pedestal Systems	18	23
MG / HG 21 - 26 Ayak Sistemleri / MG / HG 21 - 26 Pedestal Systems	21	26
MG/ HG 24 - 29 Ayak Sistemleri / MG / HG 24 - 29 Pedestal Systems	24	29
MG / HG 27 - 32 Ayak Sistemleri / MG / HG 27 - 32 Pedestal Systems	27	32
MG / HG 30 - 35 Ayak Sistemleri / MG / HG 30 - 35 Pedestal Systems	30	35
MG / HG 33 - 38 Ayak Sistemleri / MG / HG 33 - 38 Pedestal Systems	33	38
MG / HG 36 - 41 Ayak Sistemleri / MG / HG 36 - 41 Pedestal Systems	36	41
MG / HG 39 - 44 Ayak Sistemleri / MG / HG 39 - 44 Pedestal Systems	39	44
MG / HG 42 - 47 Ayak Sistemleri / MG / HG 42 - 47 Pedestal Systems	42	47
MG / HG 45 - 50 Ayak Sistemleri / MG / HG 45 - 50 Pedestal Systems	45	50
MG / HG 48 - 53 Ayak Sistemleri / MG / HG 48 - 53 Pedestal Systems	48	53
MG / HG 51 - 56 Ayak Sistemleri / MG / HG 51 - 56 Pedestal Systems	51	56
MG / HG 54 - 59 Ayak Sistemleri / MG / HG 54 - 59 Pedestal Systems	54	59
MG / HG 57 - 62 Ayak Sistemleri / MG / HG 57 - 62 Pedestal Systems	57	62
MG / HG 60 - 65 Ayak Sistemleri / MG / HG 60 - 65 Pedestal Systems	60	65
MG / HG 63 - 68 Ayak Sistemleri / MG / HG 63 - 68 Pedestal Systems	63	68
MG / HG 66 - 71 Ayak Sistemleri / MG / HG 66 - 71 Pedestal Systems	66	71
MG / HG 69 - 74 Ayak Sistemleri / MG / HG 69 - 74 Pedestal Systems	69	74
MG / HG 72 - 77 Ayak Sistemleri / MG / HG 72 - 77 Pedestal Systems	72	77
MG / HG 75 - 80 Ayak Sistemleri / MG / HG 75 - 80 Pedestal Systems	75	80
MG / HG 78 - 83 Ayak Sistemleri / MG / HG 78 - 83 Pedestal Systems	78	83
MG / HG 81 - 86 Ayak Sistemleri / MG / HG 81 - 86 Pedestal Systems	81	86
MG / HG 84 - 89 Ayak Sistemleri / MG / HG 84 - 89 Pedestal Systems	84	89
MG / HG 87 - 92 Ayak Sistemleri / MG / HG 87 - 92 Pedestal Systems	87	92
MG / HG 90 - 95 Ayak Sistemleri / MG / HG 90 - 95 Pedestal Systems	90	95
MG / HG 93 - 98 Ayak Sistemleri / MG / HG 93 - 98 Pedestal Systems	93	98
MG 96 - 101 Ayak Sistemleri / MG 96 - 101 Pedestal Systems	96	101



General Information

Aspen Yapı ve Zemin Sistemleri Sanayi ve Ticaret A.Ş.	Targa
Programme holder IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	Owner of the Declaration Aspen Yapı ve Zemin Sistemleri Sanayi ve Ticaret A.Ş. Leylak Sokak Murat İş Merkezi B Blok 3/14 34387 Mecidiyeköy / İstanbul
Declaration number EPD-ASP-20160110-CAC1-EN	Declared product / Declared unit Targa / 1 m ²
This Declaration is based on the Product Category Rules: System floors, 11 2014 (PCR tested and approved by the SVR)	Scope: Within this study a life cycle analysis (LCA) according to ISO 14040/44 is performed for Targa raised system floor manufactured by Aspen Yapı ve Zemin Sistemleri Sanayi ve Ticaret A.Ş. at the production plant in Sakarya, Turkey. The LCA is based on the data declared by the manufacturer. The EPD for Targa raised system floor is an EPD which represents the cradle-to-gate life cycle analysis of the Targa product. The declaration refers to an average product from one plant of one manufacturer. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidence.
Issue date 14/09/2016	Verification The CEN Norm EN 15804 serves as the core PCR. Independent verification of the declaration according to ISO 14025: <input type="checkbox"/> internally <input checked="" type="checkbox"/> externally
Valid to 13/09/2021	Prof. Dr. Ingrid Grottel (Independent verifier appointed by SVR)

Product

Product description
Targa Raised Access Flooring Systems produced by Aspen have been designed to provide the space required for data, power, air conditioning, fire and security infrastructures that have become a necessity for all commercial spaces.
Targa Raised Access Flooring Systems enable a fast and cost-free intervention to the space formed under finishing levels with their modular structure and thus render the space functional. It consists of 60 x 60 cm panels freely laying on pedestals, stringers and braces which form the substructure. Panel core can be chipboard or calcium sulfate according to project requirements.

Application
In general, raised floor installation areas are offices, IT rooms, public, commercial and private buildings in order to create cavities/installation space.

Technical Data
Each model of raised access flooring systems has its own technical data.

Parameter	Value	Unit
System construction (total FF)	up to 1500	mm
Substructure (from - to)	30 - 1500	mm
Drammage / system weight	20 - 50	kg/m ²
Density of the base course	600 - 1600	kg/m ³
Break load Statics (EN 12825 / EN 13213)	min 4000	N
Deflection (EN 13501/DIN 4102) building material class	B/C	-
Deflection (EN 13501/DIN 4102) fire protection	B/C	-
Fire protection (EN 13501/DIN 4102) building material class	B/C	-
Fire protection (EN 13501/DIN 4102) fire resistance	1000000 - 10000000	Ω
Electrostatics (DIN EN 10811)	000	Ω
Working load	1.8 - 3.2	kN
Maximum load	≥ 4	kN
Safety factor	2-3	-
Panel load class	1, 2	-



LCA: Calculation rules

Panel deflection class	A-C
Panel dimension class	1

Base materials / Ancillary materials
ASPEN Targa Raised Access Flooring Systems are primarily made of particle board, steel, PVC and other auxiliary substances. Main raw materials as mass percentage are:

Name	Value	Unit
Chipboard	60	%
Steel	30	%
PVC	5	%
Ancillary Substances	5	%

Reference service life
According to EN 15084, the reference service life (RSL) shall only be declared in the EPD which cover the entire life cycle of a product. The modules declared in this EPD are the production stage information modules from A1 to A3. However, based on the market feedback and the fact that the Targa products which were used in the projects that were carried out 20 years ago have still been well functioning, it can be noted that, unless there is in conformity in the working conditions and maintenance methods, Targa products are expected to be usable for more than 20 years without losing stability and functional properties.

LCA: Calculation rules

Declared Unit
The declared unit is 1 m² of Targa raised system floor. The average mass of the product is approximately 63 kg. According to the data from the year 2015 of the manufacturer, of 63 kg of mass of the product produced in 2015, 60% is particleboard, 30% is steel sheet, 4% is PVC, 2% is rubber, 1% is glue, and only 0.82% is calcium sulfate. The classification of the declaration is 1c, which is declaration of an average product from one plant of one manufacturer, based on PCR-A Chapter 5.2.
The average breakdown of the input materials, i.e. raw materials, energy, and water, is based on the normalized percentages of the two alternatives, namely particleboard and calcium sulfate, and is given in a range in the table below. According to this, for the year 2015, 98.6% and 1.4% of the input materials are used by the particleboard and calcium sulfate options, respectively.

Conversion factor to 1 kg	0.0158	-
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System boundary
The system boundary includes the production of Targa raised system floor from the extraction of raw materials to the production of finished packaged products at the factory gate - cradle-to-gate.
In this study, the product stage information modules A1, A2, and A3 are considered. These modules include extraction and processing of raw materials, A1; transport of the raw materials to the manufacturer, A2; and manufacturing, including the packaging of the product, A3. As stated by PCR-A version 1.5, a potential release of carbon in C4 is to be declared. Therefore, assuming that 80% of particleboard is composed of wood, with the carbon content of 52%, the potential CO₂ emission in C4 can be calculated as to be 65.08 kg CO₂-equiv., which is caused by the use of wood in particleboard part of the product. The CO₂ sequestered in the containerboard used in the packaging has not been included given the negligible mass of the material. The results of the analysis in terms of the mass contributions of all processes to global warming potential are also given in the table below.

Name of component	Particleboard	Calcium sulfate
Raw materials (Mkg)	2.958-3.944	0.42-0.56
Energy (TWhW)	157.76-162.69	2.24-2.31
Water (TL)	79.86-83.81	1.12-1.19

Note: Mkg = million kilograms, TWh = thousand kilowatt.hours, ML = thousand liters

Declared unit	Value	Unit
Declared unit	1	m ²
Grammage (incl. subconstruction)	63	kg/m ²

Comparability
Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to EN 15804 and the building context, respectively the product-specific characteristics of performance, are taken into account.

LCA: Scenarios and additional technical information

The modules A4, A5, B1, B2, B3, B4, B5, Reference Service Life (RSL), B6, B7, and C1-C4 are neither considered nor declared in this study.
Of the weight of the Targa raised system floor product, 1% comprises of the materials used in the packaging of the product. These materials are wooden pallets and cardboard boxes, in which the product is placed. The weight of the pallets is slightly over then 6.10 kg per m² of product, whereas of cardboard box is slightly less than 0.30 kg per m² of product.



LCA: Results

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)																
PRODUCT STAGE	CONSTRUCTION PROCESS STAGE				USE STAGE				END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES			
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Rehabilitation	Operational energy use	Operational water use	Disassembly	Transport	Disposal	Reuse/Recycling potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	MND

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT (2015 Ceiling system) / 1 m²

Parameter	Unit	A1-A3	C4
Global warming potential	[kg CO ₂ -Eq]	8.5E+0	6.5E+1
Depletion potential of the abiotic ozone layer	[kg PCPE-Eq]	3.77E-9	IND
Acidification potential of acid rain	[kg SO ₂ -Eq]	3.96E-1	IND
Eutrophication potential	[kg PO ₄ -Eq]	3.46E-2	IND
Potential of freshwater eutrophication	[kg N-Eq]	4.26E-2	IND
Abiotic depletion potential for non-fossil resources	[kg S-Eq]	3.65E-3	IND
Abiotic depletion potential for fossil resources	[kg O ₂ -Eq]	1.05E-3	IND

RESULTS OF THE LCA - RESOURCE USE: Targa Ceiling system / 1 m²

Parameter	Unit	A1-A3	C4
Renewable primary energy as energy carrier	[MJ]	4.4E+2	IND
Renewable primary energy resources as mineral depletion	[MJ]	5.9E-3	IND
Total use of renewable primary energy resources	[MJ]	1.15E+3	IND
Non-renewable primary energy as energy carrier	[MJ]	1.9E+3	IND
Non-renewable primary energy resources as mineral depletion	[MJ]	1.57E+1	IND
Total use of non-renewable primary energy resources	[MJ]	1.18E+3	IND
Use of electricity (net)	[kWh]	0.05E+0	IND
Use of renewable electricity	[kWh]	0.02E+0	IND
Use of non-renewable electricity	[kWh]	0.03E+0	IND
Use of net fresh water	[l]	4.9E+1	IND

RESULTS OF THE LCA - OUTPUT FLOWS AND WASTE CATEGORIES: Targa Ceiling system / 1 m²

Parameter	Unit	A1-A3	C4
Hazardous waste disposal	[kg]	4.03E-4	IND
Non-hazardous waste disposal	[kg]	1.95E-3	IND
Recyclable waste disposal	[kg]	1.75E-2	IND
Compost for reuse	[kg]	6.02E-2	IND
Materials for recycling	[kg]	0.02E+0	IND
Hazardous by-products	[kg]	0.02E+0	IND
Excess electrical energy	[kWh]	0.02E+0	IND
Excess thermal energy	[kWh]	0.02E+0	IND

*Assuming that the product may be incinerated at the end of its life, the biogenic CO₂ emissions generated during the incineration is declared in the column C4. Thus, this value of GWP represents the global warming potential including the biogenic carbon from the incineration.

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- AVEA Maçka / İstanbul | AVEA Macka / Istanbul
- AXA Sigorta / İstanbul | AXA Sigorta / Istanbul
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- Çolakoğlu Metal / İstanbul | Colakoglu Metal / Istanbul
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- Dünya Göz / Antalya | Dunya Goz / Antalya
- Edak Eczacı Deposu / İzmir | Edak Pharmacy / Izmir
- Efes Pilsen / İzmir | Efes Pilsen / Izmir
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- Hyundai AR-GE Merkezi / İzmit | Hyundai AR-GE Center / Izmit
- İSKİ Atıksu Laboratuvarı / İstanbul | ISKI Wastewater Lab. / Istanbul
- İstoç Yönetim / İstanbul | Istoc Headquarters / Istanbul
- İş Bankası / İzmir | Is Bank / Izmir
- Kartal Belediyesi / İstanbul | Kartal Municipality / Istanbul
- Kayseray / Kayseri | Kayseray / Kayseri
- Kayserigaz Genel Müdürlük / Kayseri | Kayserigaz Headquarters / Kayseri
- Kazakcell / Kazakistan | Kazakcell / Kazakhstan
- Kipa / İstanbul | Kipa / Istanbul
- Kütük Mermer / İstanbul | Kutuk Mermer / Istanbul
- Landmark Ofis/ Bakü | Landmark Offices / Baku
- Mahal Ankara Ofis Projesi / Ankara | Mahal Ankara Office Project / Ankara
- Maidan Ofis Projesi / Ankara | Maidan Office Project / Ankara
- Manisa Devlet Hastanesi / Manisa | Manisa Public Hospital / Manisa
- Mas Petrol / İstanbul | Mas Petrol / Istanbul
- Memur-Sen Genel Merkez / Ankara | Memur-Sen Headquarters / Ankara
- Mercedes-Benz Genel Müdürlük / İstanbul | Mercedes-Benz Headquarters / Istanbul
- Mercedes-Benz AR-GE Merkezi / Aksaray | Mercedes-Benz AR-GE Center / Aksaray
- MNG Kargo Vadi İstanbul Ofis / İstanbul | MNG Kargo Vadi Istanbul Office / Istanbul
- Nova Office / İstanbul | Nova Office / Istanbul
- Novartis / İstanbul | Novartis / Istanbul
- NP45 Media Center / Abu Dabi, BAE | NP45 Media Center / Abu Dhabi, UAE
- ÖSYM Genel Merkez / İstanbul | OSYM Headquarters / Istanbul
- Regnum Skytower Ofisleri / Ankara | Regnum Skytower Offices / Ankara
- Renault / Bursa | Renault / Bursa
- Rönesans Ofis Projesi / Cezayir | Ronesans Office Project / Algeria
- Rönesans Holding / Ankara | Ronesans Holding / Ankara
- Sabiha Gökçen Havalimanı / İstanbul | Sabiha Gokcen Airport / Istanbul
- Sarıtaş Demir Çelik / Kocaeli | Saritash Demir Celik / Kocaeli
- Şişecam Fabrikası / Eskişehir | Sisecam Factory / Eskisehir
- Tabidze İş Merkezi / Gürcistan | Tabidze Business Center / Georgia
- Tanı İnşaat / Kazakistan | Tani Construction / Kazakhstan
- TEB / Muğla | TEB / Mugla
- Tedaş / Antalya | Tedas / Antalya
- TEİAŞ Trafo Merkezleri / 12 İl | TEIAS Transformer Stations / 12 Cities
- Tekstilbank / İstanbul | Tekstilbank / Istanbul
- Tekstilcent SFK Ofis / İstanbul | Tekstilcent SFK Office / Istanbul
- Telpa Genel Müdürlük / İstanbul | Telpa Headquarters / Istanbul
- Telsim / İstanbul | Telsim / Istanbul
- THY ERP Binası / İstanbul | THY ERP Center / Istanbul
- Turkon Holding / İstanbul | Turkon Holding / Istanbul
- Tusaş B850 Mühendislik Binası / Ankara | Tusas B850 Engineering Building / Ankara
- Tüpraş / İzmir | Tupras / Izmir
- Türker Nakliyat / İstanbul | Turker Logistics / Istanbul
- Viko Elektrik / İstanbul | Viko Electricity / Istanbul
- Vista Turizm / İstanbul | Vista Tourism / Istanbul
- Vodafone / İstanbul | Vodafone / Istanbul
- Ziraat Bankası / İstanbul | Ziraat Bank / Istanbul

Eylül 2022'de üretilmiştir.

Published in September, 2022.

Stok Kodu | Stock Code: 14999111

Katalog Kodu | Catalog Code: ASP-ENTR-TG-0221-R3

Fotoğraflar | Photographs

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