

EXTERIOR GRADE DECORATIVE PANELS





*exterior
grades*



G-Ext® Exterior Decorative Panels

G-Ext® exterior decorative panels are produced by pressing impregnated kraft papers together with decorative papers which are EBC (Electron Beam Curing) treated. The process of pressing involves high pressure and temperature.

- G-Ext® exterior decorative panels will remain clean for a long period of time thanks to its smooth, non-porous surface.
- Enables easy cleaning.
- Fire retardant.
- Doesn't melt during the fire, doesn't form fire drops, doesn't burst into flames and doesn't explode and doesn't release poisonous gases.
- It is extremely resistant to impacts and mechanic pressure.
- Doesn't include asbestos – chloride heavy metals and toxic materials.
- It has an ability to recover easily after impacts.
- It is highly endurable to corrosion and cracking.
- It is economic and convenient in terms of technical characteristics and endurance.
- It can be easily processed, cut, sized, drilled and formed.
- Longlived. It is highly resistant against humidity and vapour.
- It is UV radiation resistant in wide range of climate conditions.
- It is acid rain resistant.
- Warranty period is 10 years.



Water
Repellant



Impact
Resistance



Dry Heat
Resistance



Scratch & Abrasion
Resistance



Low Light
Reflectivity



Heat & Cold
Resistance



Easy to
Clean



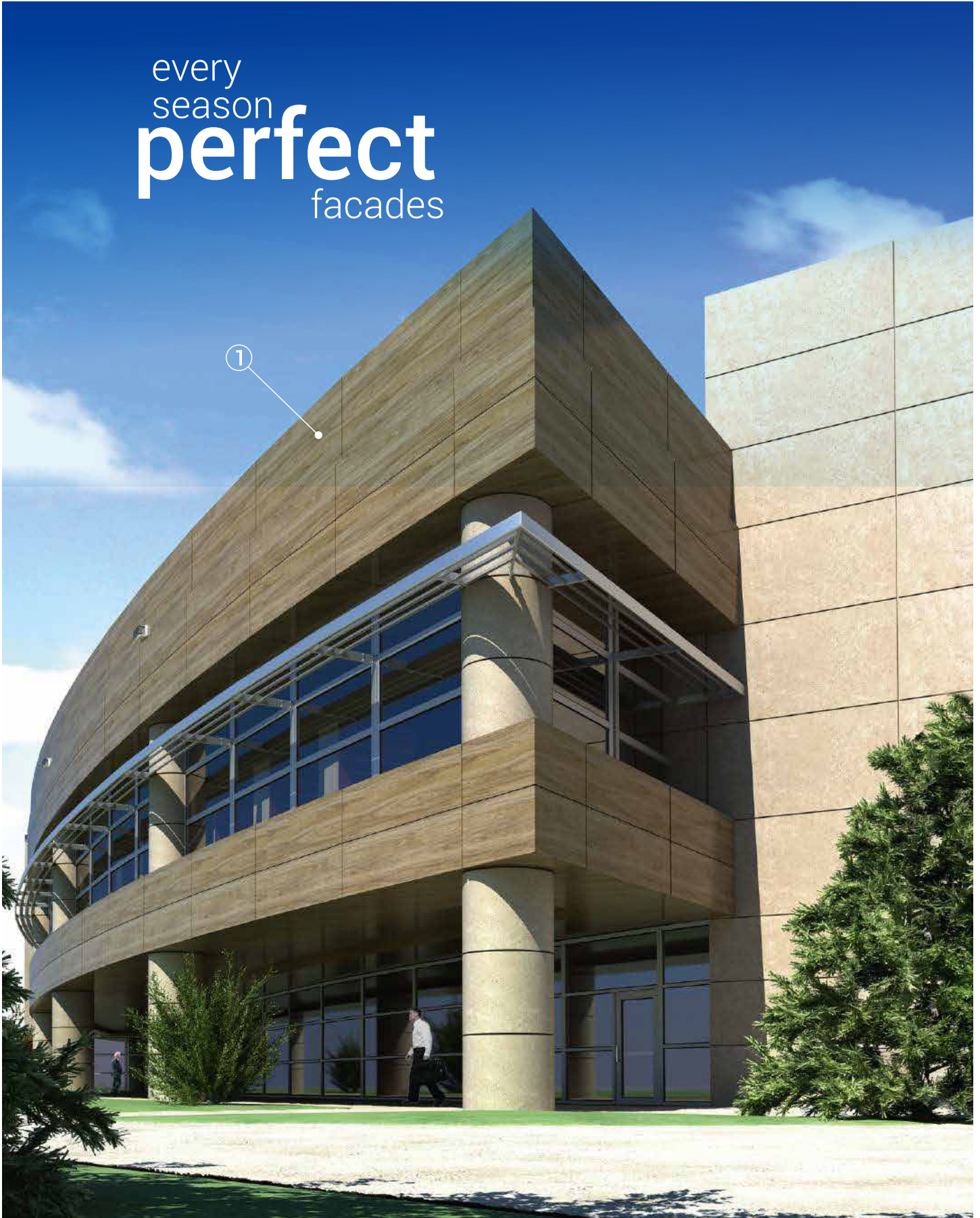
Ultra Color
Intensity



Chemical
Resistance



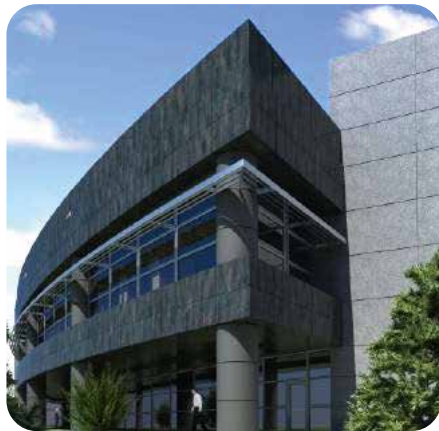
every
season
perfect
facades



①



24657



25686



25690



24658

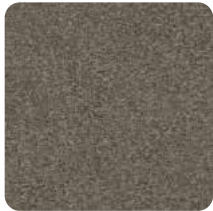


25689

Decor dressing was applied in the project on the pictures.



25685



25683



24657



25687

①



24658

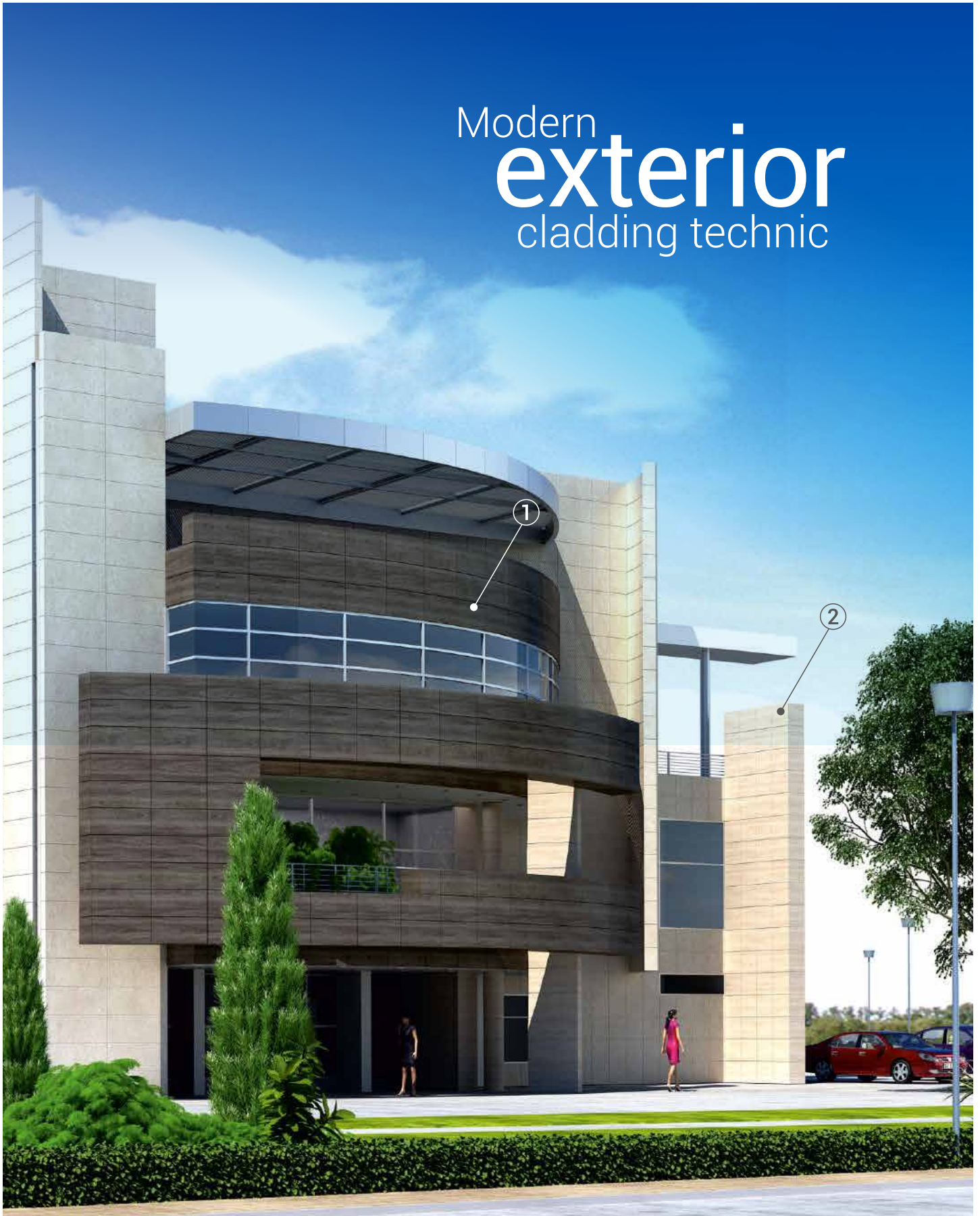
②



24659

Decor dressing was applied in the project on the pictures.

Modern exterior cladding technic





Decor Code: 23103 and 24565



complementing wood decors



①



25685



24657



24659



25683



25678



25683



24658

Decor dressing was applied in the project on the pictures.



Decor Code: 23148





23294



24658



24659



24657



25687



25689

①



25678

②



25687

Decor dressing was applied in the project on the pictures.

Natural touch on design architecture



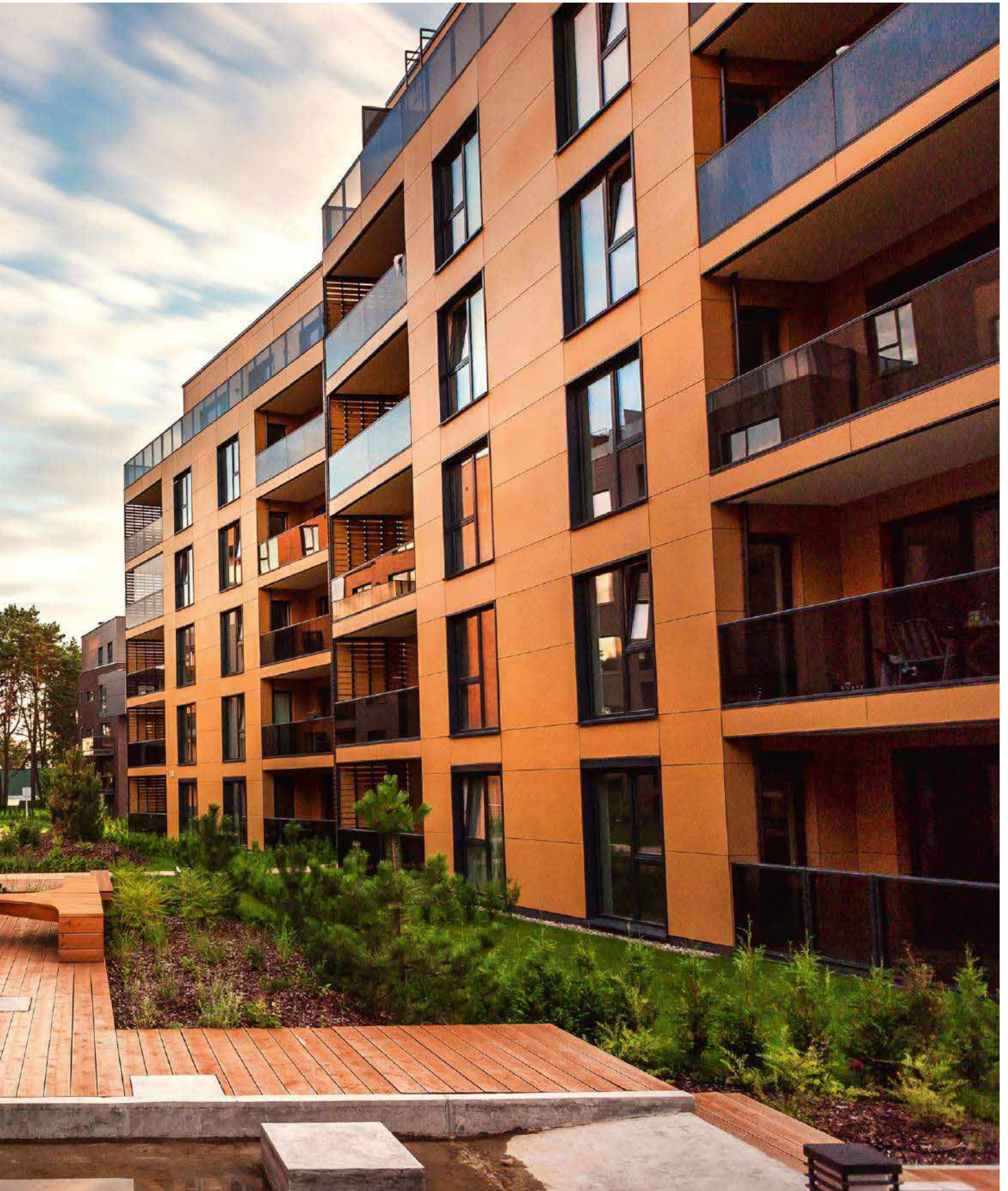
Modern exterior cladding technic

Decor Code: 22020





Decor Code: 24274 and 24220



①



24279

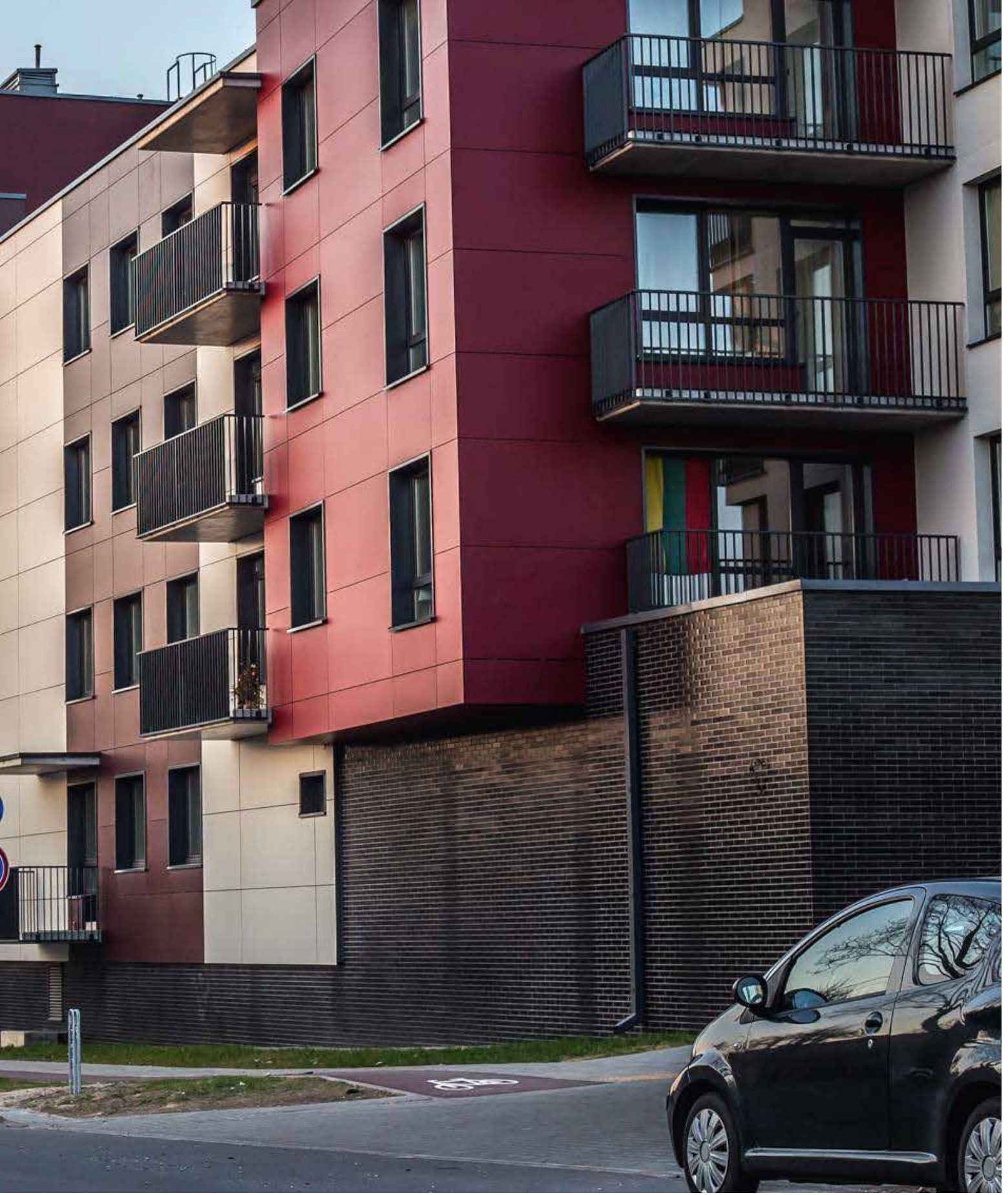




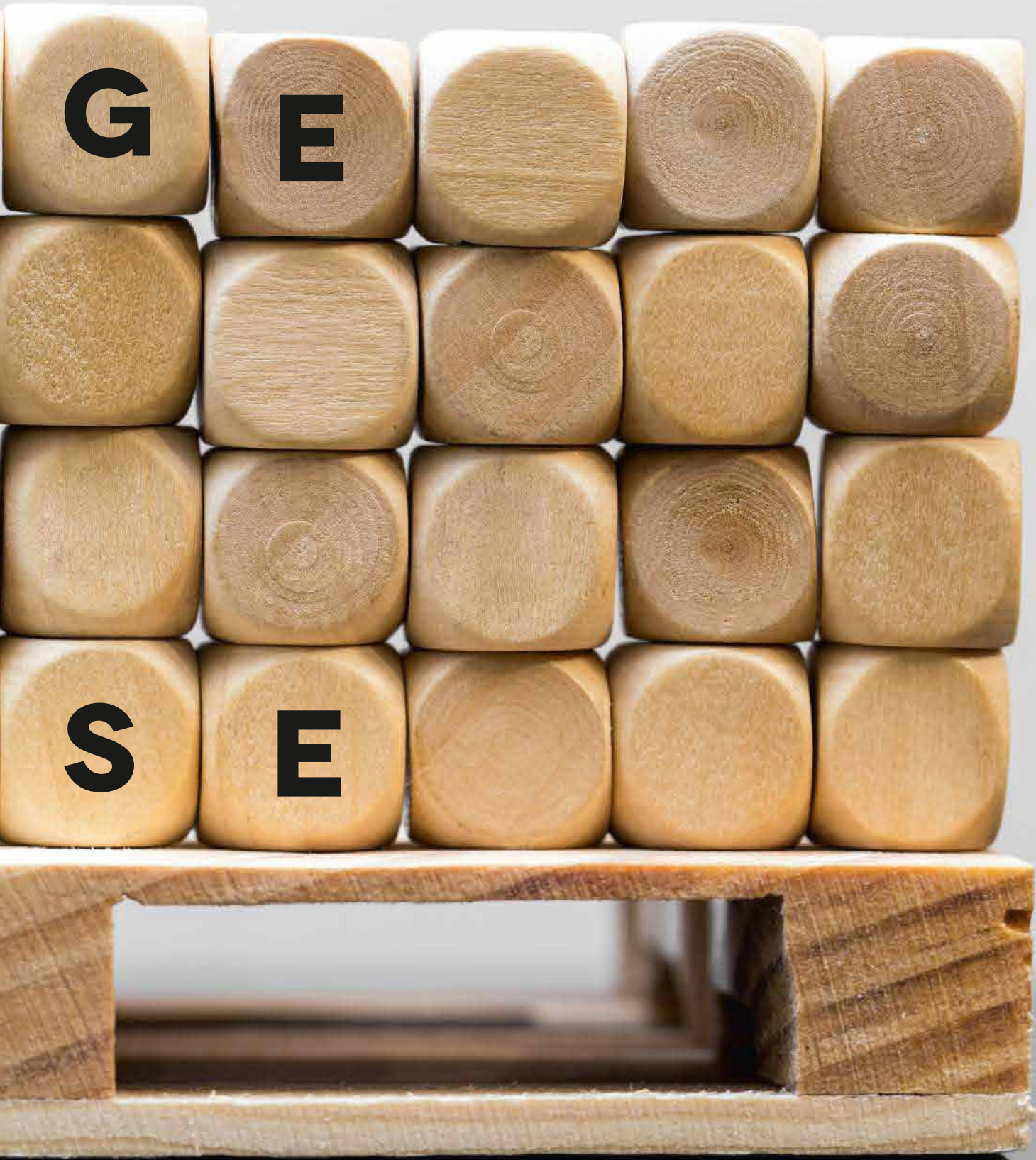
The facades
inspired by nature



Decor Code: 23104 and 23116







1.Storage

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



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



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



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

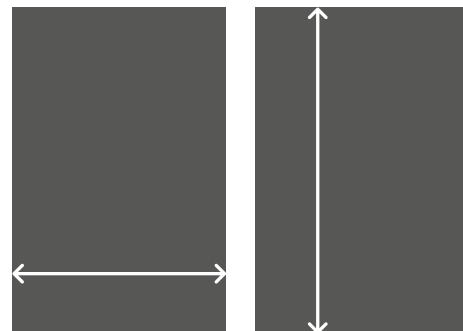


5. As the plates can change dimension, depending on the weather, they must be acclimated 72 hours before mounting/processing.



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

| | |
|----------------|----------------------|
| Length / width | + 10mm / -0mm |
| Thickness | +/- 0.4mm |
| Curvature | 5.0 mm / m |
| Right angle | 1.5 mm / m |



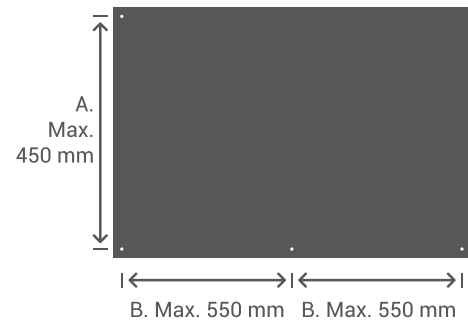
+10/-0

+10/-0

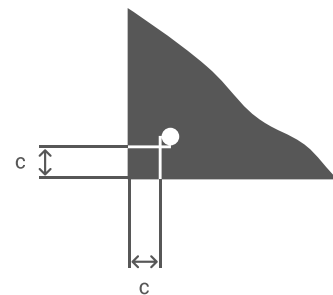
2. Drilling

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

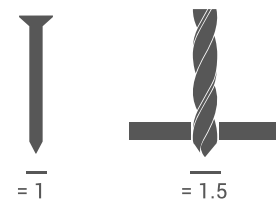
- A) (at 2 fittings): 450 mm
- B) (at 3 or more fittings): 550 mm



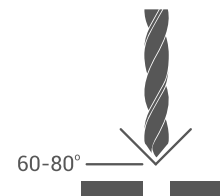
2. The distance between the edge of the plate and the edge of the screw hole shall be minimum 20 mm and maximum 60 mm on plates with plate thickness of 6 mm (C).



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



4. Use metal drill.

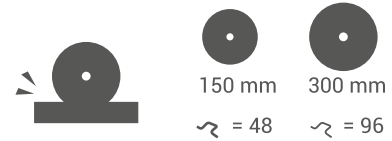


Please Note – About Handling

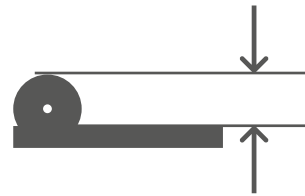
1. It is recommended to wear protective gloves and goggles while handling and processing.
2. Do not remove the protective film from the facade panels' surfaces before or during the processing. Remove the protective film on both sides of the facade panels simultaneously.
3. Lift the panels straight up and do not haul the plates against each other.

3. Cutting

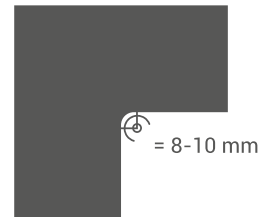
1. Use the saw blade carbide.



2. The saw settings must be fine cuts.



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



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



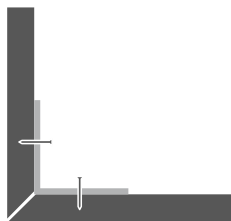
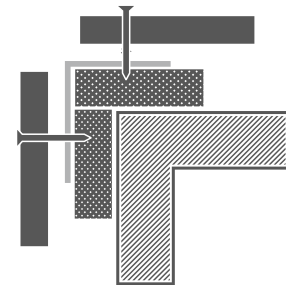
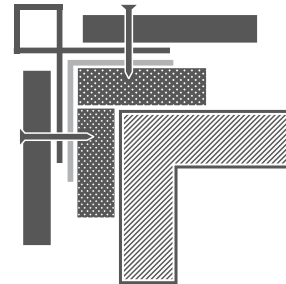
5. Grit Abrasive Paper 100

Please Note – About Handling

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.Corners

1. Corner shall be completed with a corner profile of aluminum.



Corner with 45° angle



Open Corner



Open Corner



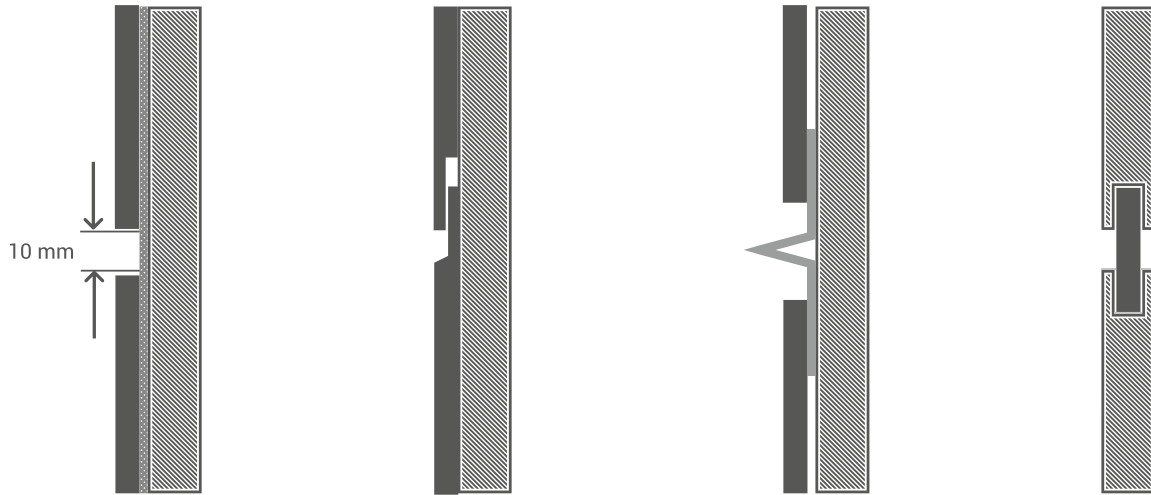
Corner Profile



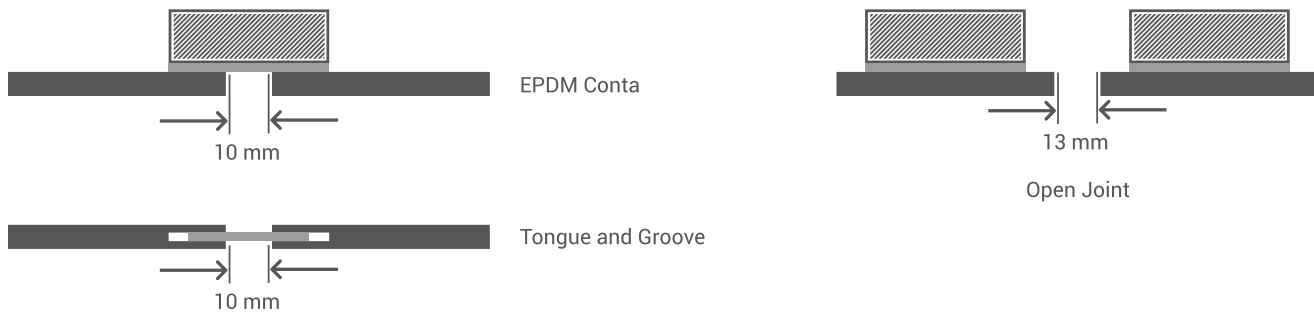
Corner Profile

3. Panel connections at the corners of the structures can be made as both open and closed joints. The panels are 8mm 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.

5. Finish Details



-
1. JOINTS; panels should be assembled in a way that they can move 2.5 mm at 1 meter both longitudinally and transversally. 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 which are 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.



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 insulating material is moistened, insulating value drops down below the required standards. Therefore, waterproof insulating material and accordingly the sub-construction are required.

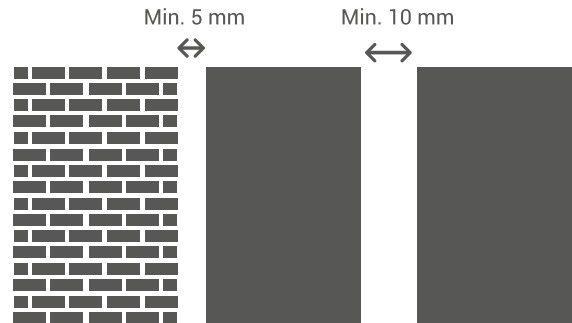
CLOSED JOINTS; tongue-and-groove and halved joints are closed joints.

JOINT PROFILES; joints can be closed with fixed metal, plastic or rubber profiles. Profiles 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. Mounting

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.



Please Note – About Handling

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.

7.Cleaning Instructions

1. The following cleaning instructions are suitable for periodic cleaning / maintaining and for cleaning after installation (Adhesive residue ets.)
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 clothe 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 clot
7. They 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
 - 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. Technical Data Sheet

G-Ext[®] EXTERIOR DECORATIVE PANELS

G-Ext[®] shows superior endurance against strong weather conditions; direct sun light, 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[®] panels are 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.

| | | |
|-------------------|-----------------|---|
| 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. |

Surfaces of G-Ext[®] panels are 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 | $3.0 \leq t < 5.0 \text{ mm} : \pm 0.3 \text{ mm}$ $5.0 \leq t < 8.0 \text{ mm} : \pm 0.4 \text{ mm}$ $8.0 \leq t < 12.0 \text{ mm} : \pm 0.5 \text{ mm}$ $8.0 \leq t < 12.0 \text{ mm} : \pm 0.5 \text{ mm}$ $12.0 \leq t < 16.0 \text{ mm} : \pm 0.6 \text{ mm}$ $16.0 \leq t < 20.0 \text{ mm} : \pm 0.7 \text{ mm}$ $20.0 \leq t < 25.0 \text{ mm} : \pm 0.8 \text{ mm}$ $25.0 \leq t : \text{contract, Customer / By manufacturer}$ |
| Surface Quality | EN 438-2 Section 4 Dirt, Punctures and Similar Surface Defects Fiber, Feather and Scratches | $\leq 2 \text{ mm}^2/\text{m}^2$ $\leq 20 \text{ mm}/\text{m}^2$ | $\leq 2 \text{ mm}^2/\text{m}^2$ $\leq 20 \text{ mm}/\text{m}^2$ |
| Density | ISO 1183 - 1 | 1.43 | Min. 1.35 gr/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 | $> 6 \text{ N}$ | Textured Surface Min. 3 N |
| Impact Resistance | EN 438-2 Big Ball Section 21 EDS/EDF $t \geq 6.0 \text{ mm}$ | No Crack, 3.5 mm | 1800 mm Height: No Crack, 10 mm Maks. |
| 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 |

| Characteristics | Test Method | Tested Value | Required Value |
|---|--|---|---|
| Resistance to Boiling Water | EN 438-2 Section 12 EDS/EDF t ≥ 5.0 mm Textured Surface Finish | $\Delta W = 0.5\%$ $\Delta T = 0.4\%$ Level 5 | Maks. %2 Weight Maks. %2 Thickness Min. Level 4 |
| Resistance To Wet Condition (Immersion in water 65°C; 48 Hours) | EN 438-2 Section 15 EDS/EDF t ≥ 5.0 mm | $\Delta W = 1.0\%$ Level 5 | Max. 5% in Weight Color Change Min. Level 4 |
| Resistance to Staining | EN 438-2 26 EDS/EDF Group 1 + 2 Group 3 | Level 5 Level 5 | Min. Level 5 Min. Level 4 |
| Flatness | EN 438-2 Section 9 EDS/EDF 6.0 ≤ t ≤ 10.0 mm | 1.87 mm | Max. 3 mm / 1 M Length |
| Light fastness | EN 438-2 Section 27 ⁽¹⁾ EDS/EDF Grey Scale ⁽⁴⁾ | Level 5 | Min. Level 4 |
| Resistance To UV Light 3000 Hour | EN 438-2 Section 28 ⁽²⁾ EDS/EDF Grey Scale ⁽⁴⁾ Contrast Appearance | Level 4 Level 5 | Min. Level 3 Min. Level 4 |
| Resistance To Artificial Weathering 3000 Hour | EN 438-2 Section 29 ⁽¹⁾ EDS/EDF Grey Scale ⁽⁴⁾ Contrast Appearance | Level 4 Level 5 | Min. Level 3 Min. Level 4 |

| Characteristics | Test Method | Tested Value | Required Value |
|---|--|---|---|
| Resistance to Boiling Water | EN 438-2 Section 12 EDS/EDF t ≥ 5.0 mm Textured Surface Finish | $\Delta W = 0.5\%$ $\Delta T = 0.4\%$ Level 5 | Maks. %2 Weight Maks. %2 Thickness Min. Level 4 |
| Resistance to Wet Condition (Immersion in water 65°C; 48 Hours) | EN 438-2 Section 15 EDS/EDF t ≥ 5.0 mm | $\Delta W = 1.0\%$ Level 5 | Max. 5% in Weight Color Change Min. Level 4 |
| Resistance to Staining | EN 438-2 26 EDS/EDF Group 1 + 2 Group 3 | Level 5 Level 5 | Min. Level 5 Min. Level 4 |
| Flatness | EN 438-2 Section 9 EDS/EDF $6.0 \leq t \leq 10.0$ mm | 1.87 mm | Max. 3 mm / 1 M Length |
| Light fastness | EN 438-2 Section 27 ⁽¹⁾ EDS/EDF Grey Scale ⁽⁴⁾ | Level 5 | Min. Level 4 |
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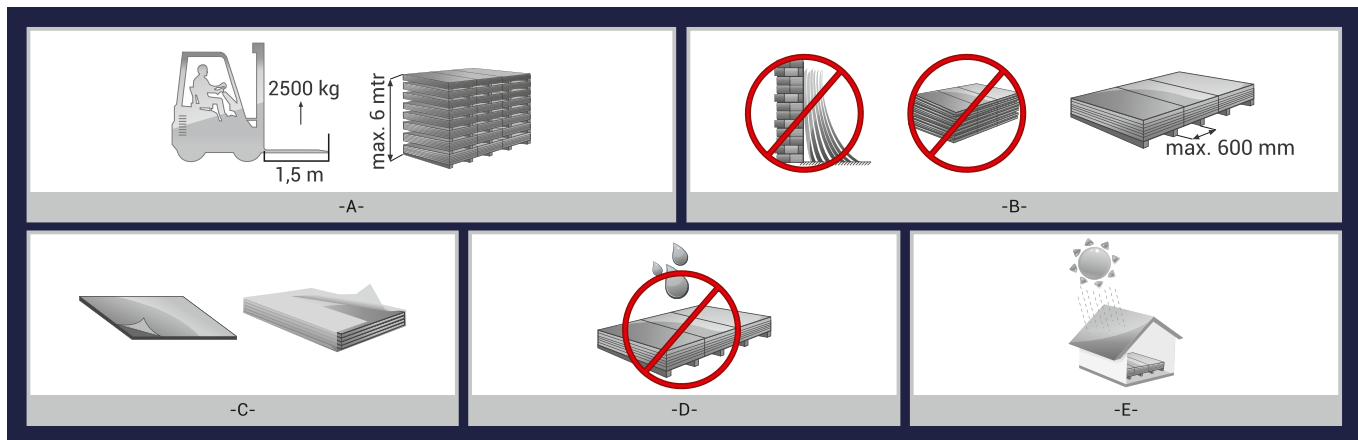
| Characteristics | Test Method | Tested Value | Required Value |
|--|---|---------------------------------|--|
| Dimensional Stability at Elevated Temperature (70°C; 90% RH) | EN 438-2 Section 17 EDS/EDF t ≥ 5.0 mm | L = 0.18% W = 0.36% | L : Maks %0.3 W : Maks. %0.6 |
| Resistance to Climatic Shock | 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 ⁽⁶⁾ 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. 60MPa |
| Coefficient of Linear Thermal Expansion (COTE) | ASTM D696-08 ⁽³⁾ | 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 ² /hr | < 0.5 mg/m ² /hr |

| Characteristics | Test Method | Tested Value | Required Value |
|--|---|--|----------------|
| Fire Classification ⁽⁷⁾ | EN 13501-1 | | — |
| | 4.0 ≤ t < 5.9 mm | B S2 d0 | — |
| | 6.0 ≤ t < 10.0 mm | B S1 d0 ERA - 14 - 095 22.10.2014 | — |
| | ASTM E 84 – 10 06 mm - 10 mm | Class A | |
| | BS 476 Part 7 : 1997 | Class 1 | |
| | DIN 5510-2:2009-05 | | |
| | 0.8 mm | S4 ; SR2 ; ST2 | |
| | 1.2 mm | S2 ; SR2 ; St2 | |
| Color Difference ⁽⁸⁾ | ISO 7724 | Uni Colors: ΔE ≤ 1.0 | — |
| | Gentas Internal Standard ⁽⁹⁾ | Printed Designs: No Visual Difference | — |
| Resistance to SO ₂ ⁽⁶⁾ | DIN 50018 | 4 – 5 | — |
| | 50 Cycles | Grey Scale | |

Instructions:

- (1) Based on test methods 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) EFT 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 EFT and the customer per batch size (Refer to project batch size).
- (9) EFT internal test method for evaluation of color difference in printed designs (wood grain / abstract).

9. Shipping and Storage Conditions for Compact Panels



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.

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.

COLOR

SIZE AND SURFACE
CHART





G-Ext® Color Chart

STRAIGHT COLORS



The colors in the catalog may differ due to the print.

METAL



25678

New



25686

New



25685

New



25687

New



25628



25629



25630

NATURAL STONE AND CONCRETE



25683

New



25690

New



25689

New



25450

The colors in the catalog may differ due to the print.

WOODEN



24279



24292



24533



24535



24534



24531



24532



24530



24390



24391



24392



24389



24241



24248



24290



24399



24525

The colors in the catalog may differ due to the print.



24657

New



24658

New



24659

New

The colors in the catalog may differ due to the print.

G-Ext® Size and Surface Chart

| 1300X2800 mm / 1300X3050 mm | | | | |
|-----------------------------|-------|--------|-----------|---------------|
| | EXT | ALPINE | ULTRAMATT | GRANITE STONE |
| EBC | 23153 | X | | |
| | 23155 | X | | |
| | 23190 | X | | |
| | 23194 | X | | |
| | 24241 | X | | |
| | 24248 | X | | |
| | 24279 | X | | |
| | 24290 | X | | |
| | 24292 | X | | |
| | 24389 | X | | |
| | 24390 | X | | |
| | 24391 | | X | |
| | 24392 | X | | |
| | 24399 | X | | |
| | 24525 | X | | |
| | 24530 | X | | |
| | 24531 | X | | |
| | 24532 | X | | |
| | 24533 | X | | |
| | 24534 | X | | |
| | 24535 | X | | |
| | 24657 | | X | |
| | 24658 | | X | |
| | 24659 | | X | |
| | 25450 | X | | |
| | 25628 | X | | |
| | 25629 | X | | |
| | 25630 | X | | |
| | 25678 | | | X |
| | 25683 | | | X |
| | 25685 | | X | |
| | 25686 | | X | |
| | 25687 | | X | |
| | 25689 | | | X |
| | 25690 | | | X |

| 1300X2800 mm / 1300X3050 mm / 1860x4200 mm | | |
|--|--------------|---|
| | ESSE - VELUR | |
| UVP | 22020 | X |
| | 22105 | X |
| | 22114 | X |
| | 22115 | X |
| | 22118 | X |
| | 22135 | X |
| | 23103 | X |
| | 23153 | X |
| | 23156 | X |
| | 23242 | X |
| | 23245 | X |
| | 23274 | X |
| | 23276 | X |
| | 23278 | X |
| | 23281 | X |
| | 23285 | X |
| | 23286 | X |
| | 23291 | X |
| | 23292 | X |
| | 23294 | X |
| | 23299 | X |



www.eftcg.com



HPL, Doublelaminar, scratch, chemical, seasonal conditions, heat resistant, stain-free, hygienic.



EN-438

