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LG Hausys Interior Film, BENII

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REFERENCE GALLERY

- Domestic & Overseas 1
 NW006/ NW008/ CW533
- Domestic & Overseas 2

 RS130 / RS127

 NW081 / NW068
- Domestic & Overseas 3

 NW067 / RS22
- Domestic & Overseas 4

 CW348 / NW062 / RS130
- Domestic & Overseas 5

 EW398 / RS86 / CW124
- Domestic & Overseas 6

 CW455 / RS57

 CW44 / NW090
- RGM06 / RS145 / ES130
- ☐ Residential Building 2
 ☑ EL177 / RP51 / BM006
 RS145 / ES167 / ES127
 PW108

- Residential Building 3
 ES167 / ES130 / ES98
 SW004 / ES35 / NW104
- Residential Building 4
 SW003 / SW003 / ES21
 ES86 / EL177 / RS135
- Residential Building 5

 BM007 / ES130 / RS145
 ES98 / SW004 / BW003
- Z:IN Square in Seoul 1
 RS127 / BW005 / BW002
- Z:IN Square in Seoul 2

 BW006 / BW002 / BW003
- $\sqrt{}$ **Z:IN Square in Seoul 3** BM006 / NE109

Z:IN Square address is 134, Hakdong-ro, Gangnam-gu, Seoul, Republic of Korea.

^{*} Z:IN Square is a flagship store of LG Hausys located in Seoul, where you can experience the latest trend for residential interior. You can also purchase LG Hausys product here.



BENIF

LG Hausys Interior Film, BENIF is a film coated with adhesive on the PVC layer that realizes versatile designs suitable for various space. Compared to existing materials, it is easier to install, and various designs provide optimal aesthetic effects for your space.

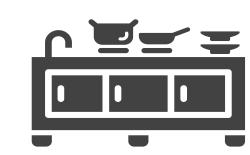
Area of Application



Commercial Building



Residential Housing



Furniture Refurbishment



Cruise & Yacht



Railway

Product Structure

BENIF

Key Performances



1. BENIE

Product Structure

Printed Layer

PVC Layer

Adhesive

Release Liner

BENIF

Product Structure

Key Performances

12BENIE

Key Performances



Fire Resistance

By using PVC film and adhesive developed with superior unique technology of LG Hausys, BENIF achieves excellent fire retardant performance. It prevents fire from spreading to increase safety.



Excellent Design

From wood, which brings out the breath of the trees to the abstract, BENIF is available in over 700 designs. BENIF can embody a variety of emotions through designs developed by design team of LG Hausys, is the best material for your luxurious tastes.



Easy Application

With the Air Free function, it is possible to finish installation quickly without worrying about air bubbles, so it can be used without restrictions even in commercial, residential and transportation. It can be attached to the length of the winding without any seams in the middle, allowing application in large structures such as column, ceiling, and hallway.



Easy Maintanance

Compared to other materials, it is easy to install, easy to maintain, and more durable, so it is not easily damaged. Also, BENIF is easy to clean even if it is contaminated. Why not try BENIF on old furniture? It can bring a completely new impression on old furniture.



Eco Friendly

By minimizing VOCs (volatile organic compounds) and other harmful substances, BENIF meets global environmental standards such as the European Textile Product Quality Certification Mark (OEKO-TEX) and CE Certification.



Build Ability

Use BENIF on curved surfaces, corners, and edges that are difficult to attach with other materials. You will feel satisfied with superior finishing.

Product Structure

BENIF

Key Performances



2. BENIF Product

Category	Category-1 Category-2		Pattern Code	No. of colors	Length/Roll
	Solid	Solid (High Gloss)	GS,GM	3	30m
	Solid	Solid (Pearl, Glossy, Gloss-matte)	RS, RE, RSP, RSH, RGM, RB	110	50m
	Metal	Metal	MS,ME,RP	21	50m
		Wood	CW	116	50m
		Wood	DW	28	50m
	Wood	Wood	SW	6	50m
Fire Retardant	vvoou	Classic Wood	PW	22	30m
rife Retardant		Premium Wood	NW	73	50m
		Big Wood	BW	6	50m
	Abstract	Marble and Limestone	ML, RM	33	50m
		Brick and Concrete	NS	3	30m
		Big Marble	BM	8	50m
		EL-Reina	EL,EV	18	50m
		Leather	LE	6	30m
	Solid	Solid (Pearl, Glossy, Gloss-matte)	ES, ESP, ESH, EGM, HS	88	50m
Non Fire Retardant	Wood	Wood	EW	140	50m
		Premium Wood	NE	59	50m
	Abstract	Pearlite	PL	6	50m
	Outdoor	Outdoor	US,UM,UP	10	30m

Primer	Category-1	Category-1	pattern code	MOQ
Primer	Water Based	Primer (Water Based) 1kg	PM04_01	1BOX = 10EA
	vvatei baseu	Primer (Water Based) 3kg	PM04_03	1BOX = 6EA





* The above product line up is valid as of July 13th, 2020



2019-2020 Catalog download

Eco-friendly

LG Hausys Interior Film BENIF was developed with components satisfying the environment-friendly standards for various raw materials and adhesives, and transformed into a real eco-friendly product which meets the standards of public offices, schools, daycare centers as well as health-friendly homebuilding by achieving eco labels by types.

Non Phthalate & Heavy Metal Free

Eco-friendly

Fire Safety

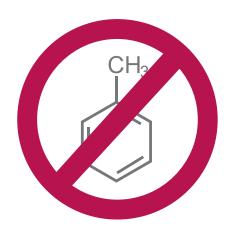
Reliable quality

Build Ability



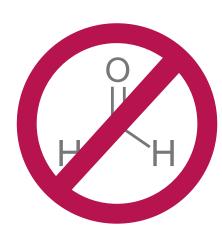
Volatile Organic Compounds

Below 0.10 mg/m².h



Toluene

Below 0.080 mg/m².h



Formaldehyde

Below 0.015 mg/m².h



Phthalate Plasticizer Content

Below 0.1% (DEHP, DBP, BBP, DINP, DIDP, DNOP)



Cadmium, Mercury, Hexavalent Chrome

Below 1,000mg/kg



Lead

Below 600mg/kg

Eco-friendly

Fire Safety

Reliable quality

Build Ability

Eco-friendly



European textile product quality certification OEKO-TEX® STANDARD 100 is a certification that verifies harmful substances in products that come into contact with skin, such as clothing, bedding, toys, and other interior materials. The first class (Baby Class) acquired by BENIF is suitable for toys and clothing used by infants under 3 years of age. BENIF is the first product in the industry which obtained the European textile product quality certification (Baby Class), so you can use it safely even in a residential space

www.oeko-tex.com/standard100 Applicable Product : ES Series Only

Eco-friendly

Fire Safety

Reliable quality

Build Ability

Fire Safety

- LG Hausys Interior Film BENIF is the product which was produced under the close quality control of LG Hausys and passed the strict fire retardant testing of Korea Fire Institute. Also, the achievement of vessel material certification of Korean Register of Shipping by carrying out a performance test of vessel apparatus of KOMERI (Korea Marine Equipment Research Institute) proves its safety to be applicable for domestic and overseas vessels.
- In addition, not only in the domestic market, BENIF has been certified for excellent fire retardant performance and obtained certificates from accredited overseas certification bodies such as Lloyd. Through this achievement, BENIF has been supplied to various fields including commercial, residential, cruise, and railway globally.

Criteria of Fire retardant certification in Korea

Carbonization area under 30cm²

Carbonization length under 3sec

Remaining flame time under 3sec

Afterglow time under 5sec

under 5sec

under 200

Eco-friendly

Fire Safety

, Reliable quality

Build Ability

Fire Safety

What is Fire Retardancy?

• If fire retardant performance is given through special treatment to a substance with a high risk of fire, it prevents or delays the expansion of combustion after fire occurrence. BENIF, which has obtained fire retardant performance, does not burn well. Therefore, BENIF can secure time for evacuation during fire extinguishing, thereby enhancing safety.

* This feature is applied to only fire retardant version.





Fire Retardant

- Non Fire Retardant
- The above picture shows two type of the film after exposed to fire for 60 seconds.
- The fire retardant product has a small burnt area. In contrast to fire retardant, non fire retardant product has charred area and hole showing that large part of the film was quickly burnt down.

Eco-friendly

Fire Safety

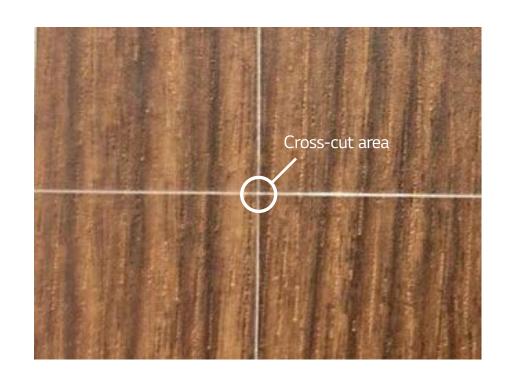
Reliable quality

Build Ability

Reliable quality

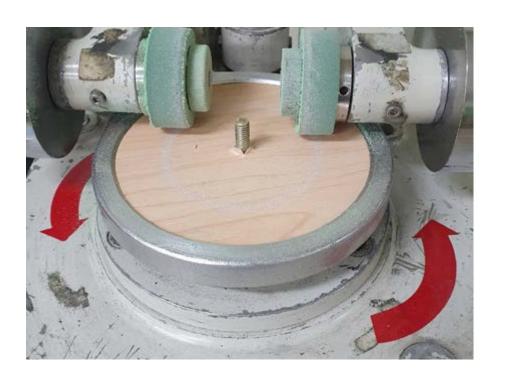
Dimensional Stability

Measure the gap after 2 hrs (100°C)



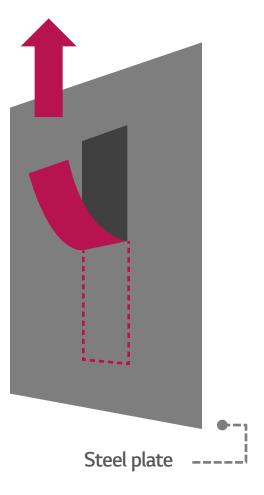
Abrasion Resistance

Test Standard JIS K 7204



 Abrasion resistance can vary depends on the embossed pattern and texture of the film

Adhesion Test



• To maintain excellent adhesion quality of BENIF, Instron test is being conducted before products are shipped.

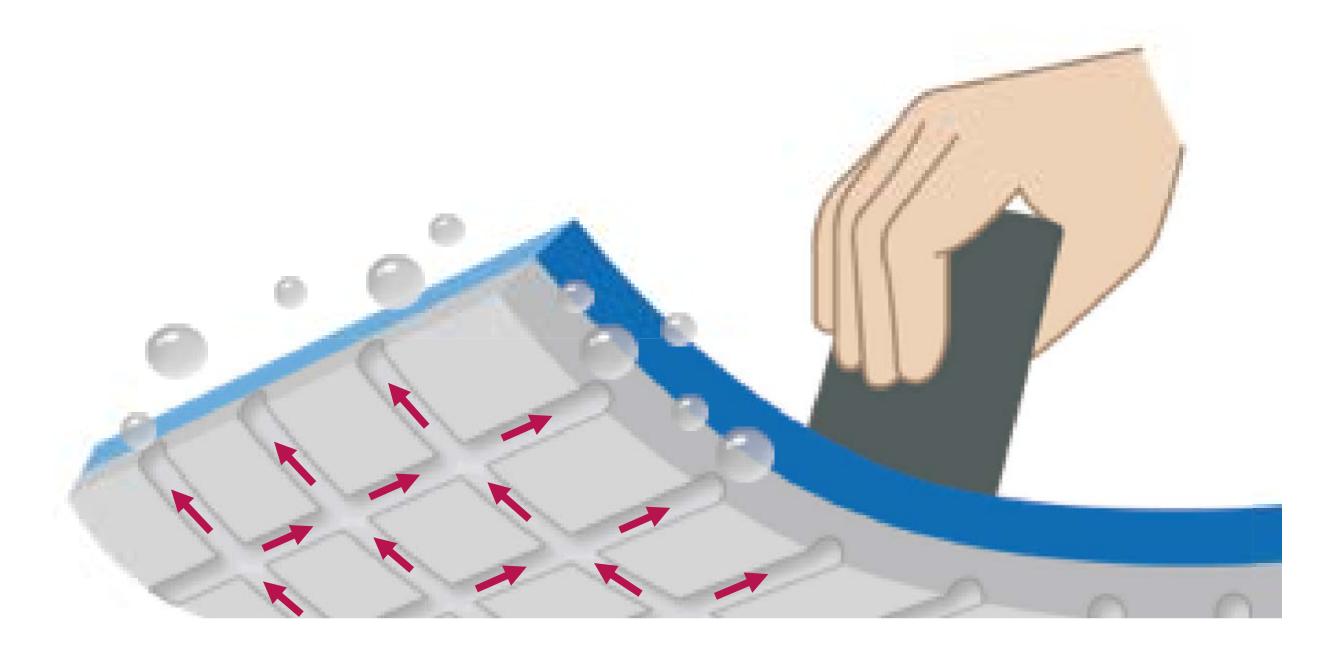
Eco-friendly

Fire Safety

Reliable quality

Build Ability

Build Ability



Air free channel releases trapped air quickly.



List of Certification and Testing Report

Туре	Name of Certificate & Test Report	Country	Organization	Applicable Product
	KR Type Approval Certificate	Korea	Korean Register of Shipping	All Fire Retardant Patterns
	Firefighting Equipment Approval	Korea	Korea Fire Institute	All Fire Retardant Patterns
	UL Certification	USA	UL LLC	All Fire Retardant Patterns
Fire Retardant -	B1 Test Report	Germany	Test Institute for the reaction to fire Behavior of Construction Products	All Fire Retardant Patterns
i ile Netalualit	CE KA5007 & KA5008	UK	Warringtonfire	All Fire Retardant Patterns
	Lloyd Marine Certification (Fire Approval, Module B&D)	UK	Lloyd's Register	All Fire Retardant Patterns
	A2_Fire Retardant Certification	China	China Building Material Test & Certificate Group	Customized Product for China
	B1_Fire Retardant Certification	China	China Building Material Test & Certificate Group	Customized Product for China







UL

America











Germany

CE Europe

Lloyd England shipping

A2 China

B1 China

Fire Retardant

Enviornmental

List of Certification and Testing Report

Fire Retardant

Enviornmental

List of Certification and Testing Report

List of Certification and Testing Report

Туре	Name of Certificate & Test Report	Country	Organization	Applicable Product
	Letter of Recommendation by Atopy Association	Korea	Corporation Aggregate Korea Atopy Association	ES Series only
	Certificate of Indoor Air Quality	Korea	FITI Testing & Research Institute	All BENIF Patterns
-	Phthalates Constriction Content Report	Korea	FITI Testing & Research Institute	All BENIF Patterns
Environmental -	Certificate of Low Carbon	Korea	Korea Environmental Industry & Technology Institute (KEITI).	RS Series only
Environmental -	Certificate of Eco Label	Korea	Korea Environmental Industry & Technology Institute (KEITI).	All Fire Retardant Patterns
	Certificate of OEKO-TEX	Switzerland	OEKO-TEX	ES Series only
_	OEKO-TEX Test Report	Switzerland	OEKO-TEX	ES Series only
_	CE KA5007 & KA5008	UK	Warringtonfire	All Fire Retardant Patterns
Dailway	EN45545 HL 3 Grade	India & China	SGS	All Fire Retardant Patterns
Railway -	Test report as per Indian Railway Specs MDTS 25305	India	Shriram Institute	All Fire Retardant Patterns





















KR_Type Approval Certificate_Korea





检验类别:

中心编号(AP): WT2014B03A00642

UL Certification_ R26170_USA

3 Contin Settings - J Assign





Firefighting **Equipment Approval** by Korea Fire Institute





ASTM E-84 Test Report_USA



















Fire Retardant

Enviornmental

Railway





B1 Test

Report_Germany

PDF Download

Certificate of Fire

PDF Download

Approval_UK











PDF Download









Enviornmental







Certificate of OEKO-TEX_Switzerland



OEKO-TEX Test Report_Switzerland



1. V. Vary

Customer Service Team Leed or: TESTEX Secul

Test Report SE025 164519.1-1

CE KA5007_UK



Letter of Recommendation by Atopy Association_Korea





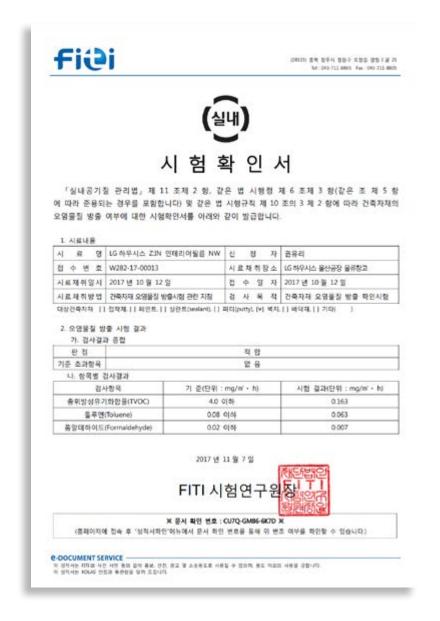


Fire Retardant

Enviornmental



Enviornmental



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PREPARED AND CHECKED BY FOR FITI

Kim Tong Burn

fiệi

APPLICANT: LG HAUSYS, LTD.

TEST REPORT

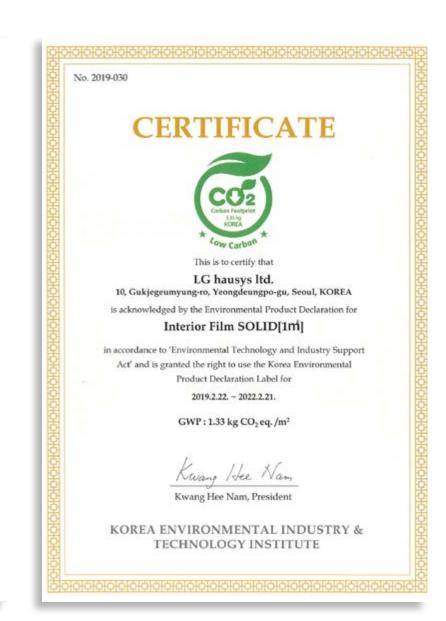
TEST CONDUCTED: AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE SEE ATTACHED PAGE.

DESCRIPTION: ONE(1) PIECE OF SUBMITTED CUTTING SAID TO BE FILM

REPORT NO.

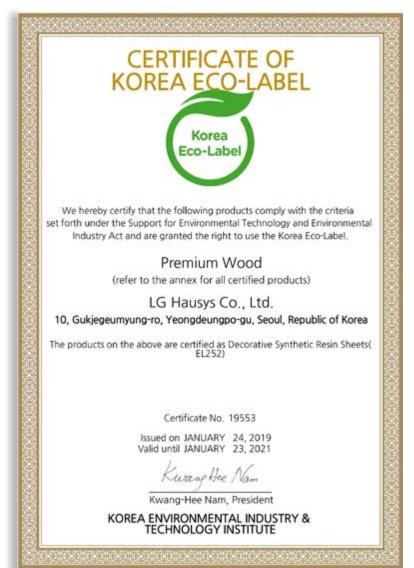
REPORT ISSUED DATE

SAMPLE RECEIVED DATE : 2018-10-01 TEST STARTED DATE : 2018-10-01



Certificate of Low Carbon product_Korea





Certificate of Eco Lable for Premium Wood_Korea



Enviornmental

Fire Retardant

Railway







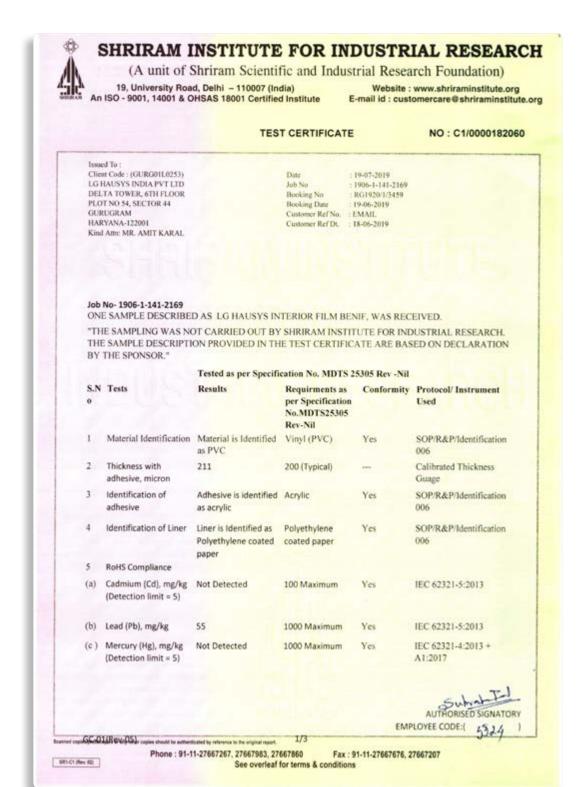
Fire Retardant

Enviornmental

Railway

Railway





Test report as per Indian Railway Specs MDTS 25305_India





Things to be aware of during BENIF application

Tools and Materials

Substrate conditioning, storage and handling



Things to be aware of during BENIF application

Substrate	Preparation method					
1. Before applying	 It is required to examine the areas in advance where problems may occur during installation by checking the type and condition of the substrate (MDF, etc.) on which the film is applied. In case of MDF, the adhesive strength and fire retardant performance differ based on density, so it is required to use MDF with uniform density. The painted surface should be cleaned with alcohol to remove contaminants, and checked for damage by solvent. Uneven areas should be polished with sand paper after the putty treatment and residues should be removed with a brush. In case of metal plates, the contaminants on the surface should be removed by using alcohol or lacquer thinner. Then uneven areas from welding should be polished with sand paper after the putty treatment and residues should be removed with a brush. It is necessary to carry out preliminary inspection work on the abnormal condition (pattern name, appearance condition, etc.) of the product selected by the customer. Installation should be carried out after the wooden construction and before painting and wallpaper work. 					
2. Prior task for Surface	- In particular, in case	The section (cut area) of the substrate (MDF, etc.) where the film will be applied must be polished sufficiently with sand paper. In particular, in case of wood materials (MDF, PB, etc.), as the smoothness of the bent and joint part is important, if the surface condition is found to be rough from the preliminary inspection, it must be polished by sandpaper or do putty treatment before installation.				
3. Primer Treatment	• For the primer treatment, the cut surface of wood materials (MDF, PB, etc.) has a high primer absorption rate, so that the primer should be applied 2 or 3 times. Multiple applications should be carried out in sequence, after the previously applied primer has completely dried.					
4. How to apply	 Please make sure that the cut surface of the film is not visible as much as possible for installation. Film installation should be done in a way that the substrate is not visible as much as possible. Since it is likely there would be a color difference between product lots, it is necessary to classify product lots for installation. The site temperature should be maintained at 15 - 25℃ from 72 hours before installation to 48 hours after installation. If the product is left outside in the winter time, it may cause deterioration of adhesion due to temperature drop. 					
	SW, EL, LE, PL	SW, EL, LE, PL - These products have no film layers on the surface but surface treatment only, so please be careful rubbing and bending corners with wool felt or cotton gloves not to damage the printed layer. - Due to the surface treatment layer, the product may slip for overlapping installation. Therefore, it is required to apply the undiluted water based primer PM-04 and dry it sufficiently before installation.				
5. Things to be aware when	US, UM, UP	- Outdoor products should be installed by observing a separate specification standard.				
applying specific products	HIGH GLOSS (GS, GM, RSH, ESH)	 In order to properly produce the luster effect of the film surface, the installation should be done in a clean environment. If the installation is being made while foreign matters (dust, dirt, etc.) remain on the adhered materials (MDF, etc.) and the adhesive surface of the film, it may cause scratch or embossing on the film surface. Due to the high hardness of the product, it is necessary to do finishing work perfectly by applying more force in order to prevent the edges from lifting and produce clean visual effect. 				







Things to be aware of during BENIF application

Tools and Materials

Substrate conditioning, storage and handling

Things to be aware of during BENIF application

Substrate	Preparation method
Painted substrate	 A. Test paint type and condition for adhesion by pre-applying a small piece of film on the subtrate B. Remove stain with solvent and make sure that the surface is not damaged. C. Apply putty on uneven areas and smooth with sandpaper. D. Adhere film after complete primer dry. Please refer to part 10. Primer_PM04 Advice on the use for recommended drying time of primer.
Melamine laminates, polyester coated laminates	A. Abrade the surface with sandpaper and remove stain with solvent. B. Adhere film after complete primer dry. Please refer to part 10. Primer_PM04 Advice on the use for recommended drying time of primer.
Plastic	A. Avoid substrates that contain any additives. Substrates such as flexible PVC, PP, Nylon and fluorine are especially not recommended. B. Remove stain with solvent
Mortar, limestone	 A. Finish with steel trowel after joints are filled with joint material to prevent cracks. B. Allow it to dry for a minimum of 3 weeks C. Remove stain with sandpaper or wire brush and clean the surface. D. Coat surface with sealer and apply putty over the whole area for better adhesion. E. Adhere film after complete primer dry. Please refer to part 10. Primer_PM04 Advice on the use for recommended drying time of primer.
Storage and handling	LG Hausys Interior Film, BENIF should be stored in a dry, cool, dark room. BENIF has a shelf life of two years after the date of production. When transporting BENIF, it should be top loaded to avoid damage. Particular care should be taken in storage and handling in winter as the film can become hard and more susceptible to damage.



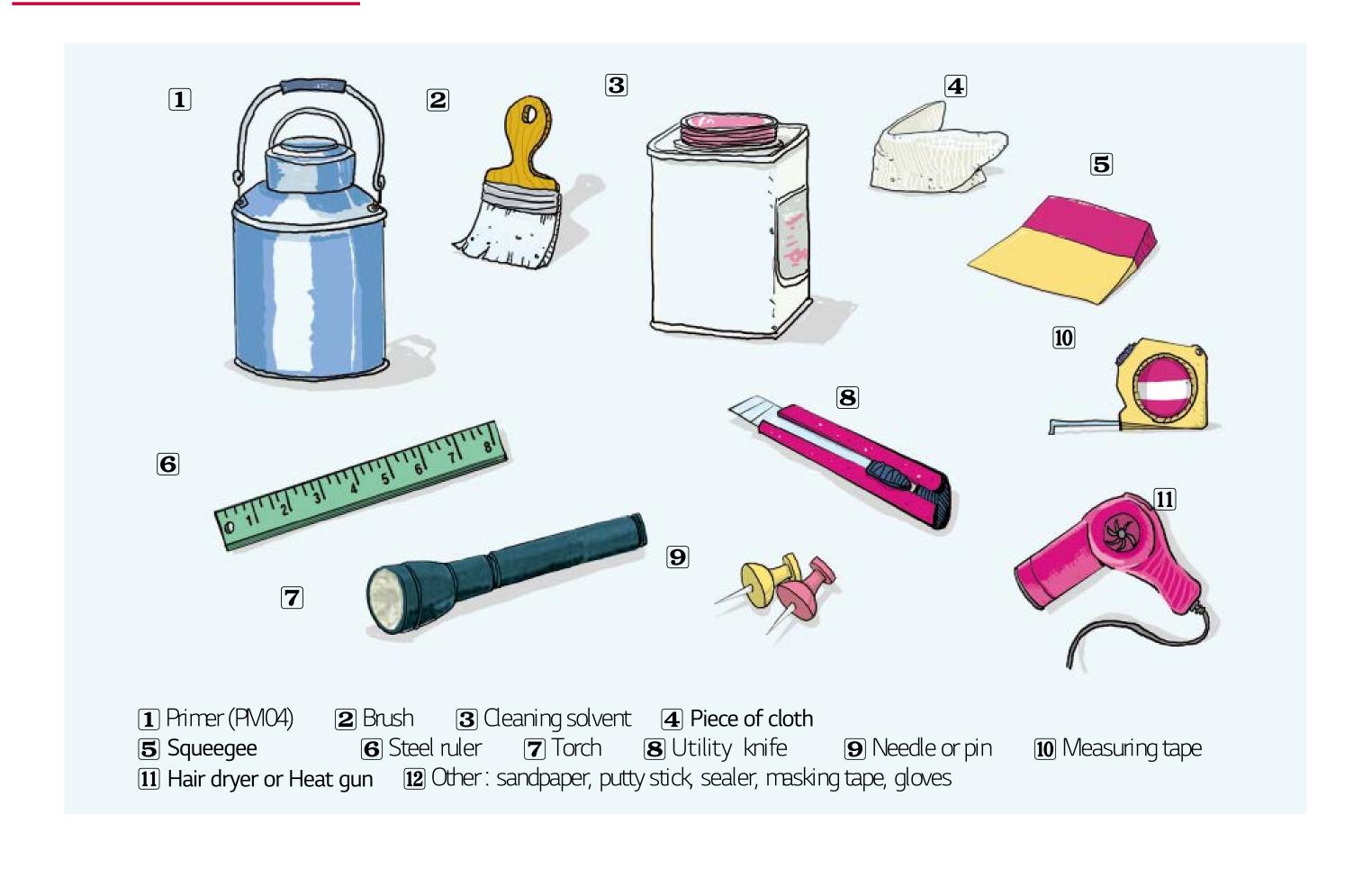


Cleaning and Preparing Substrate

Tools and Materials

Substrate conditioning, storage and handling

Tools and Materials





Cleaning and Preparing Substrate

Tools and Materials

Substrate conditioning, storage and handling

Substrate conditioning, storage and handling

Substrate	Preparation method
	Temperature For surfaces to gain maximum adhesion, LG Hausys Interior Film should be installed to substrate with a temperature ranging between 15~25°C. If the subtrate temperature is below 10°C, is should be heated by infra-red lay lamp, jet heater or hair dryer to ensure the correct temperature.
Substrate conditioning	Dust and contamination It is vital that the work area is free from dust particles, as should particles be trapped between substrate and film, they will show through the surface of the film.
Substrate conditioning	Safety The primer and substrate sealant are combustible and inflammable and should not be used or stored near heat, sparks or naked flames. Work areas should be well ventilated.
	Application table The work table or bench should be covered with corrugated paper or a blanket to ensure the interior film is not damaged.

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nsta

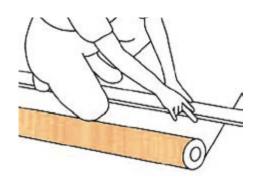
Internal Corner installation

External Corner installation

Three Dimensional Curved Surface installation

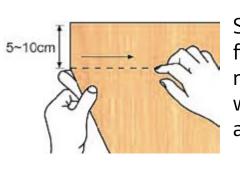
Flat areas installation

Measuring and cutting



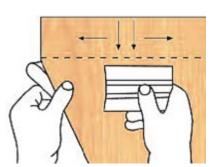
Lay the BENIF on the flat working table or carpet and measure the substrate. Always cut the film allowing for an extra size of 20~40mm over for trimming.

Positioning

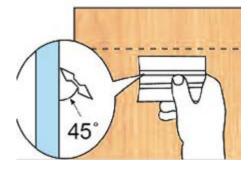


Start positioning by placing the film on the substrate. Peel back the release paper and fold it. Gently press with your thumb to gain enough adhesion to hold the film in place.

Adhesion

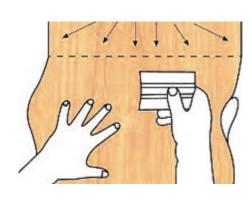


To eliminate any air bubbles under the film, start squeezing in the middle of the panel. With holding the squeegee, apply pressure on the film to gain full adhesion. Start in the middle of the panel and work your way out to the sides of the panel in each direction. Hold the squeegee at a 45 degree angle making sure squeezing in one direction only.



Pull back the release paper 300mm at a time.

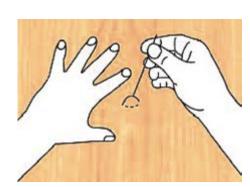
Whilst pulling back the release paper, apply pressure with the squeegee working from the top to the bottom of the panel.



Once the BENIF is adhered, press the entire panel again with the squeegee working from the top of the panel to the edges.

Particular attention should be paid to the edge of the panels.

Air bubble releasing and Finishing

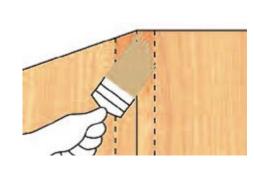


If during installation air should be trapped behind the film causing a bubble, gently strip back the film and reapply with the squeegee. Very small air bubbles can be released by pricking the bubble with a pin. Press out the entrapped air by moving your thumb toward the puncture. Any excess part of the film should then be trimmed off with a utility knife.



Internal Corner installation

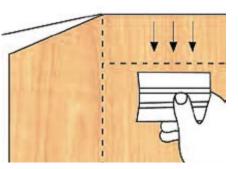
Preparation



When LG Hausys Interior Film, BENIF is applied to internal corners, first apply primer to the corner covering at least 50mm of each surface.

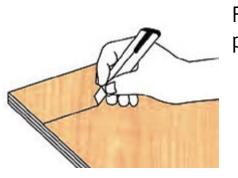
This wil ensure maximum adhesion.

Adhesion

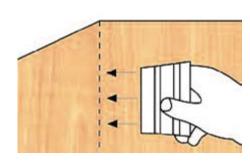


Apply the film from the widest section of the internal corner.
Using the squeegee, apply pressure to ensure the film does not bubble or drop. Press and squeeze along the

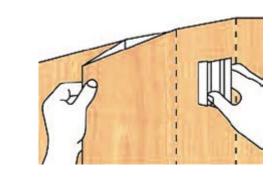
Cutting and Positioning



Follow the same method as for flat panels.

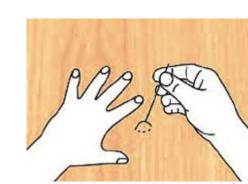


Once the film is installed into the first section of the corner gently lift and pull the film and apply pressure to the remaining corner section.



Once installed, apply pressure to the entire section using the squeegee especially the corner section.

Air bubble releasing and Finishing



Follow the same procedure as for flat

Three Dimensional Curved

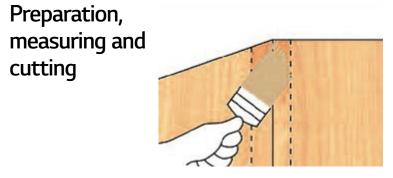
Internal Corner installation

External Corner installation



Preparation,

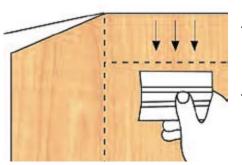
cutting



Follow the same procedure as detailed for internal corners.

External Corner installation

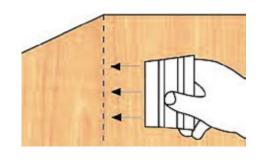
Adhesion



Apply the film from the width section bordering the external corner. Do not strip off the release paper of the narrower corner section.

Trimming

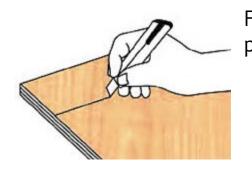
Trim the film to the desired width including the extra part for overlapping.



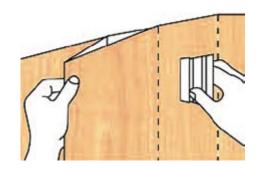
Using the squeegee, apply pressure to ensure film to be attached completely without creating bubble.

Using the same method as for flat panels, remove the release paper 200 to 300mm at a time. Hold the film firmly while applying pressure with the squeegee.

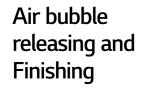




Follow the same procedure as for flat



Once installed, apply pressure using the squeegee to the entire section, especially the corners.





Follow the same procedures as for flat areas.

External Corner installation

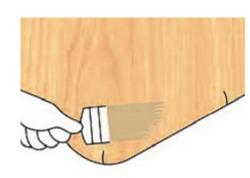
Internal Corner installation

Three Dimensional Curved



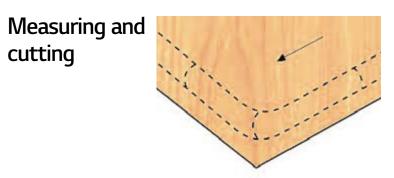
Preparation

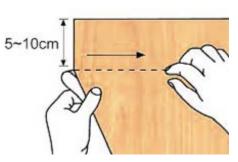
cutting



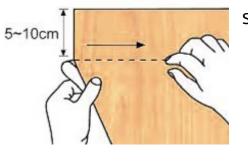
Once any bullnose or curved edges have been shaped and sanded, apply primer to the curved surface and reverse side. If the primer is easily adsorbed by the substrate, reapply the primer on the former has dried.

Cut the film 100mm larger than the substrate size.



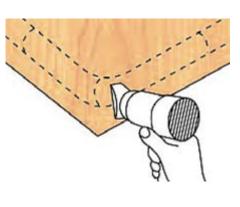


Follow the same procedure as for flat surfaces.



Adhesion

Positioning



Apply the film on flat area first. Gently heat the film that will be applied to the curved surfaces with a dryer. After the film has softened, it is then wrapped by pulling the film gently around the curve.

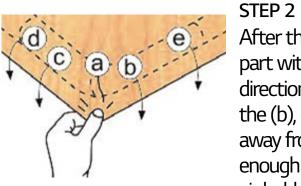
Adhesion

Air bubble

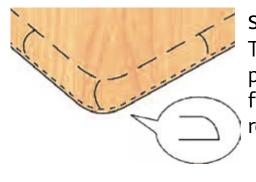
releasing

and finishing

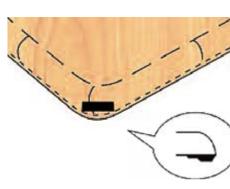
Three Dimensional Curved Surface installation



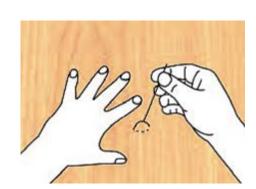
After the film is softened, hold the (a) part with the fingers and pull in the direction of the arrow. Follow by pulling the (b), (c), (d) and (e) parts working away from the corner. Ensure that enough pressure is applied to avoid any air bubbles or so that the film does not crumple.



To prevent the edge of the film from peeling off and shrinking, ensure the film is covering 20 to 30mm of the reverse side of the panel.



Cut off any excess of rolled up film with a utility knife. Apply pressure again to the entire panel, especially at the curved edge. To ensure the film does not shrink from the corner, apply a staple on the corner.



Follow the same procedure as for flat areas.

Three Dimensional Curved

Internal Corner installation

External Corner installation

7. Warranty

Shelf life

Shelf Life and Storage

- 1) Shelf Life: Apply the Product within 2 years of the date of production.
- 2) Storage Conditions
- 10~30℃
- Keep in a clean & dry area, away from direct sunlight and humidity
- Should be stored horizontally in an original carton box with end caps
- Stack maximum 6 carton boxes high.
- Keep at room temperature (15 to 25°C) for 72hours before use

Warranty

Basic Product Warranty

LG Hausys Interior Film, BENIF is self-adhesive decorative film for interior applications only in commercial & residential buildings. LG Hausys warrants that LG Hausys Interior film is free from manufacturing defects.

Limited Warranty

1) For indoor use only, LG Hausys warrants for the period specified below, which will start from earlier date between (a) product installation date and (b) six months after LG Hausys' Product shipment date. The product will have no significant discoloration, cracking or other similar visual defects for the period specified below.

Application	Warranty Period
Interior Applications with no direct UV exposure / heat & moisture free areas	3 years

Warranty

- 2) For a buyer's convenience, LG Hausys may provide general technical information, installation instruction, and other information relating to product.

 LG Hausys only warrants LG Hausys Interior Film and does not warrant any other product.
- 3) This warranty does not cover damage caused by:
 - (a) Altered, modified, or processed in any way
 - (b) Failure to follow LG Hausys' recommendations in the Warranty, Technical Data Sheet and Installation Manual
 - (c) Misuse, accident, neglect, or other action by anyone other than LG Hausys
 - (d) Being improperly installed or used including installation after the expiration of Product's shelf life or without proper surface preparation (Warranty applies only if LG Hausys' or equivalent primer is used. For any defect in adhesion when using the equivalent primer, the buyer shall inform LG Hausys of the brand, product name and the composition/information on ingredients of the primer used.)
 - (e) being exposed to excessive heat, humidity, dirt or UV light
- In the event of any complaint, the buyer shall inform to LG Hausys in writing, not later than ten (10) business days after defect occurs. This notice shall include the date on which the relevant defect is detected and a description of defect.

Expected Performance Life

Expected Performance Life is 10 years for indoor, vertical application with no direct UV exposure.

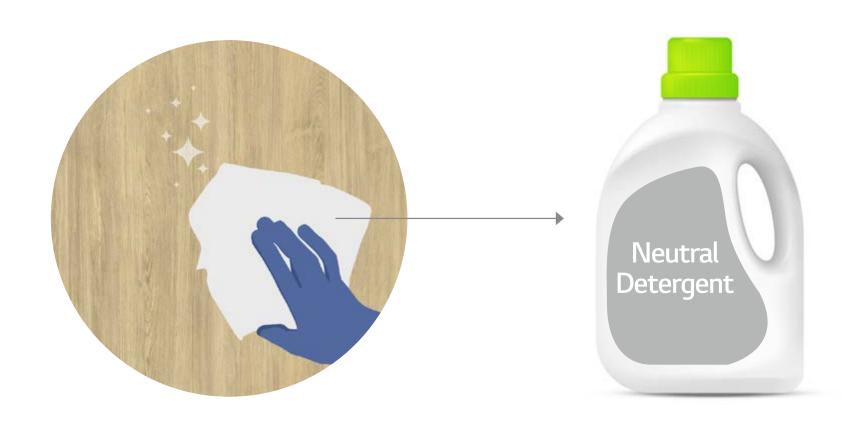
8. Cleaning and Maintenance for BENIF

Cleaning methods depend on contamination type

Contamination Type	How to Clean	
Ordinary Dust and Dirt	For ordinary dust and dirt, you can brush it off with a soft cloth or brush. If this doesn't work, apply a few drops of water to cloth or brush, then gently wipe. You can easily get rid of dust and dirt.	

Tough and Old Stains

If it is not possible to remove it with water, dip a soft cloth, brush or sponge in the cleaning solution made of mild neutral detergent. Then wipe gently the film to remove stains.



Caution for SW, EL series

Product Series	Notes	
SW, EL	SW, EL product series doesn't have clear top layer. A special care has to be taken not to wipe the stains on these series too strongly. Cleaning methods are same as written above cleaning methods.	

Caution

- When cleaning, if you use solutions mixed with ketone/acetone, it can damage the film.
- When cleaning for accumulated dirts on the engraved part of emboss, please use soft brush. In case of using hard brush, it can damage the film.



9. BENIF Technical Data Sheet

General Data



With special self-adhesive treatment, BENIF is easy to apply not only on flat surface but also on irrgegular surface, saving time and cost.



- Permanent & Yellow Adhesive (Flame Retardant)
- Permanent & Clear Adhesive (Non Flame Retardant)



- Single Side PE coated release liner (Air-free)
- PET Liner (GS/GM)



• 2 years (Shelf life)



Applications (Type of Substrate)

MDF

Calcium silicate board

Veneer

PC Acryl

Aluminium

PE,PP

Melamine - baked steel board

0

Roll Sizes

122cm (48in) X 50M/R

122cm (48in) X 30M/R (GS/GM/PW/NS/US/UM/UP/LE/PL)

Recommendation of Primer

Iron, painted board

• LG Primer (Water Based): PM-04

Physical Features

Product Series	Notes	Test Method
Thickness (without a release paper)	0.15~0.38mm	Micrometer
Tensile strength (kgf/cm²)	(L)150~350 / (W)100~350	ASTM 882
Elongation (%)	(L)0~400 / (W)0~400	ASTM 882
Adhesion (24hr)	≥ 1,000g/in	180 peeling PSTC-1
Application temp.	15~25℃	15 to 25℃ optimum, on clean substrate
Dimensional stability	0.8mm ↓	Adhered to Aluminum Plate, Length Direction (100°C Oven, 2hr , Average)
Thickness of a release paper	0.14mm ± 10% (PET Liner : 0.05)	Micrometer

^{*} This information is based on a standard test specification. LG Hausys is not responsible for damaged product due to customer's carelessness.

^{*} The size and specification of this product can be changed without a notice.

^{*} This product has tolerance in total thickness due to different embossing effects.

- The LG BENIF Primer (PMO4) increases the adhesion between the film and the surface. In particular, for substrate such as MDF, primer penetrates the wood layer and form a membrane on the surface to enhance application stability.
- We recommend to use of water based primer (PM-04), which is less odorous and more eco friendly.
- When using PM04 primer, water is used as diluent

Preparation before use

- Before applying the primer, if necessary depending on the type of the substrate, use tools such as sandpaper to smooth and flatten the substrate.
- After completely removing foreign substances such as dust, moisture, and oil from the surface, you can apply the primer. And the substrate must be completely dried before primer application.
- Before applying primer, if necessary, you can attach protective film to prevent contamination of other adjacent finishing materials (e.g. paints, MDF, etc.) through primer.

Primer Application

- By using a brush or roller, please apply primer to the entire surface without any missing area.
- Primer(PM-04) needs to be mixed with water for use. Also, after application, it must be dried sufficiently for optimal performance. The dilution ratio with water and the drying time may vary depending on the working environment, ambient temperature, and condition of the substrate. Please refer to the table below and apply it properly according to the situation.

Seasons	Month	Mixing	Drying time	
Seasons	IVIOIILII	Primer	Water	Drying time
Winter	Dec ~ Mar	1	1	24hr
Spring & autumn	Apr~May, Oct~Nov	1	1.5	12hr
Summer	Apr~Sep	1	2	8hr

Caution

- The working environment must be sufficiently ventilated during and after application.
- A special care has to be taken to apply only the appropriate amount of the primer.
- The storage space for primer should be well-ventilated and maintained at room temperature. If primer is stored in an environment where temperature is below 5°C, it may freeze
- Do not use primer for any purpose other than for film installation.



Domestic & Overseas



NW006 ZOOM Q



NW008 ZOOM Q







Domestic & Overseas



NW006 ZOOM Q



NW008 ZOOM Q







Domestic & Overseas



NW006 ZOOM Q



NW008 ZOOM Q







Domestic & Overseas



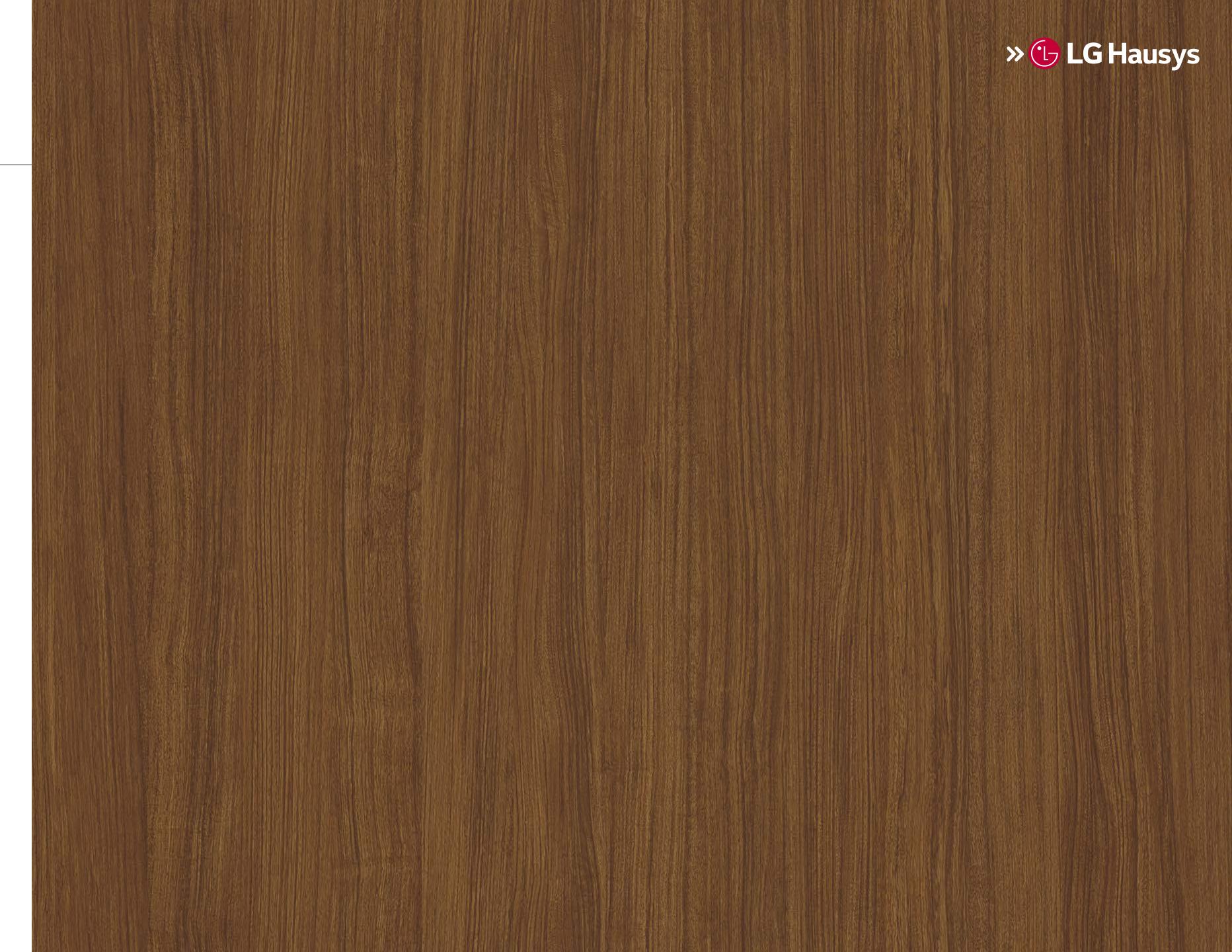
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NW008 ZOOM Q



CW533 ZOOM Q





Domestic & Overseas



NW006 ZOOM Q



NW008 ZOOM Q







Domestic & Overseas



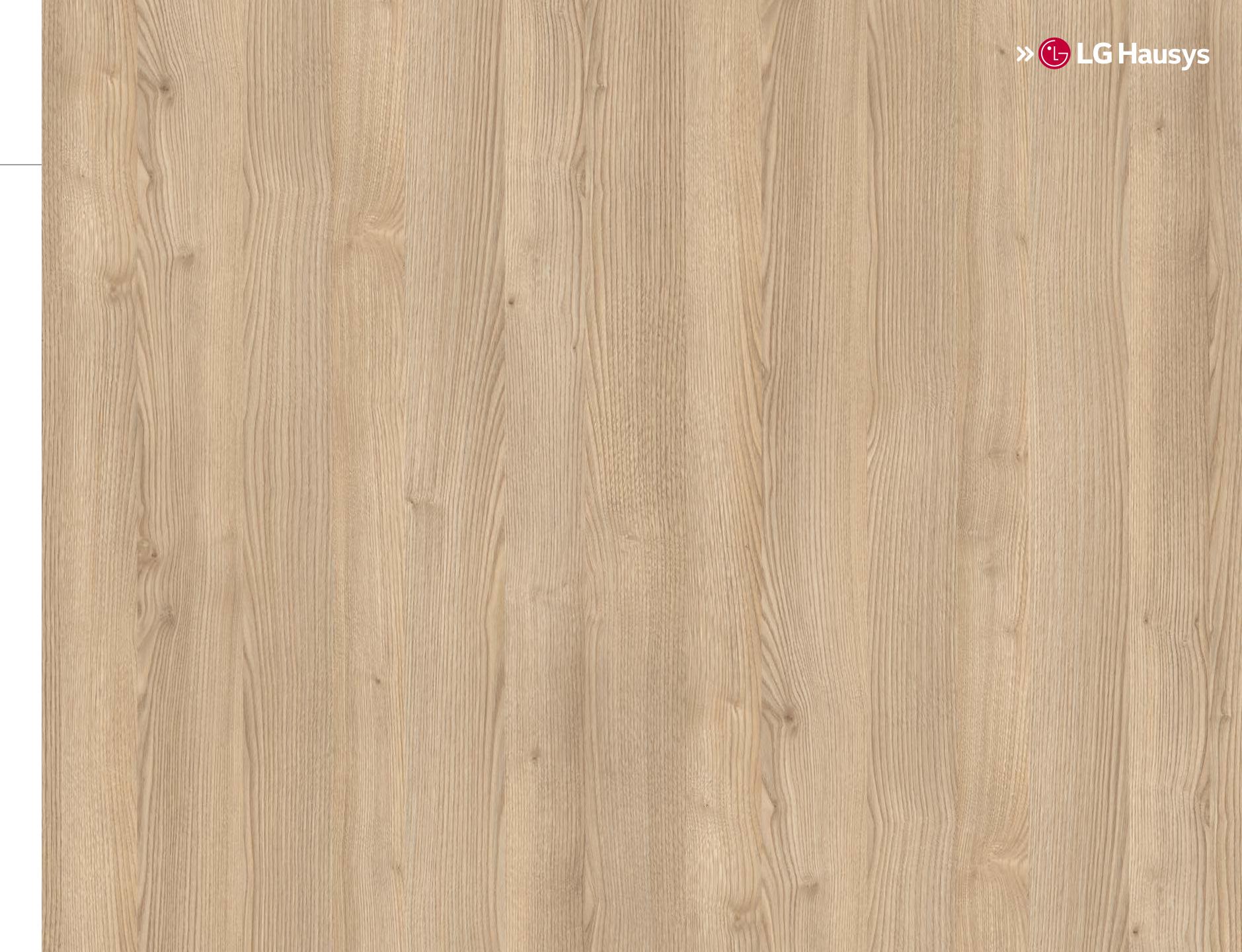
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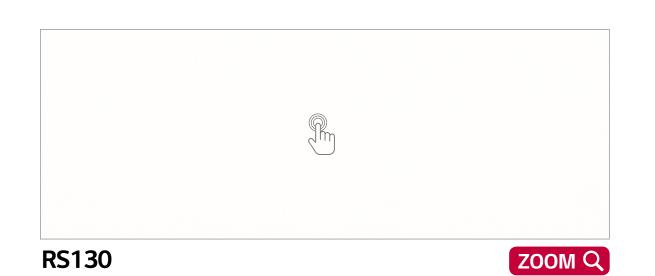
ZOOM Q 800WN



CW533 ZOOM Q



Domestic & Overseas

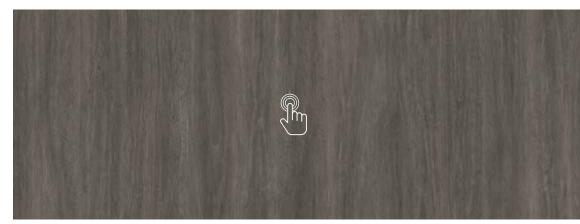




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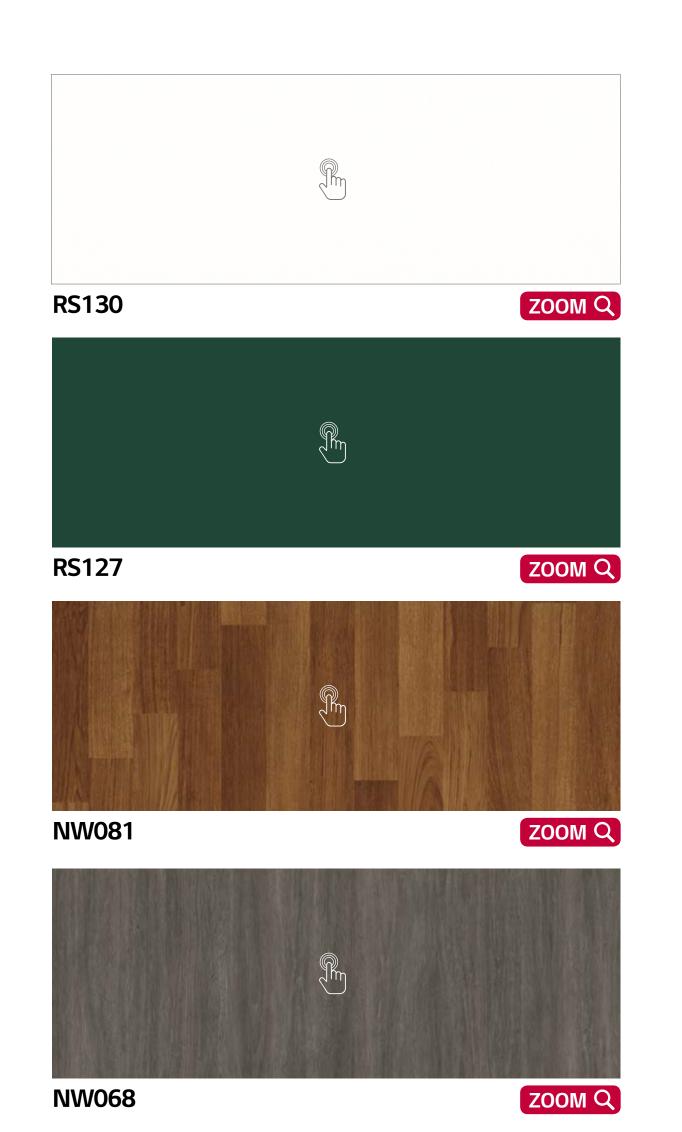


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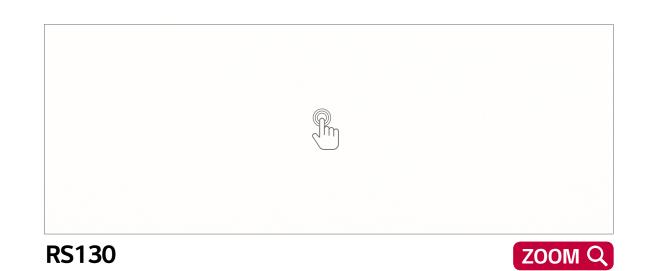


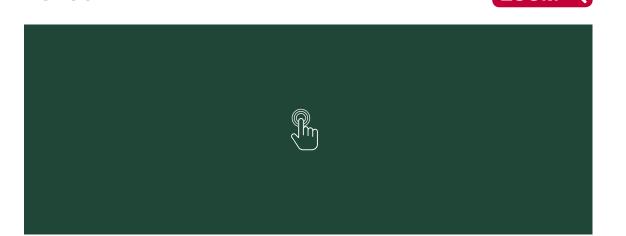
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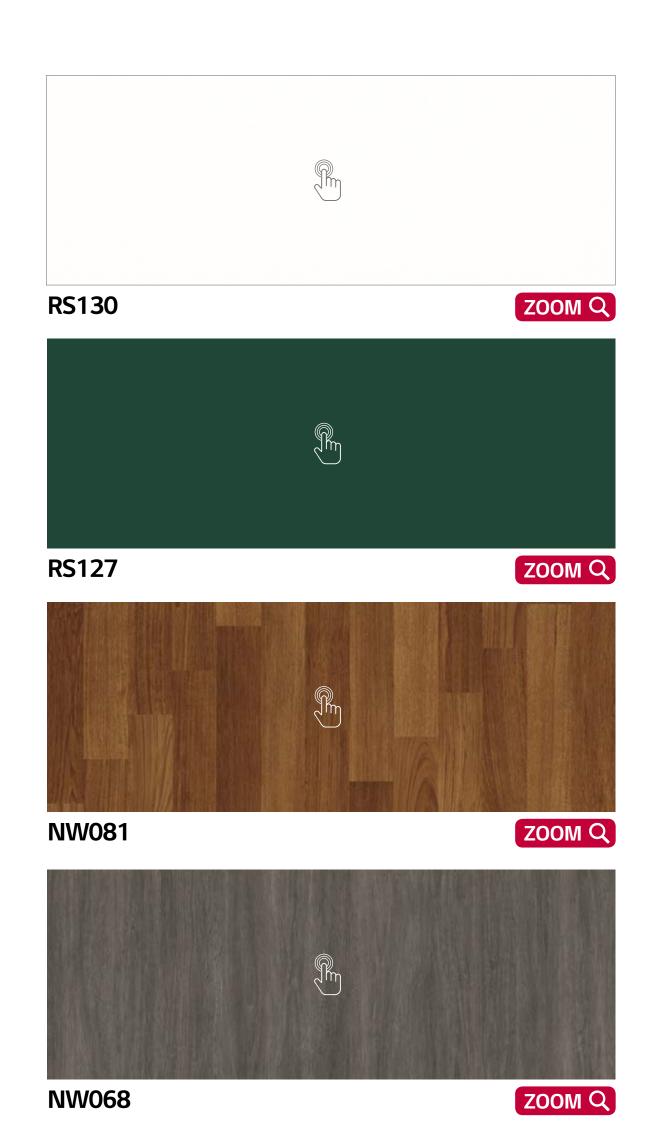




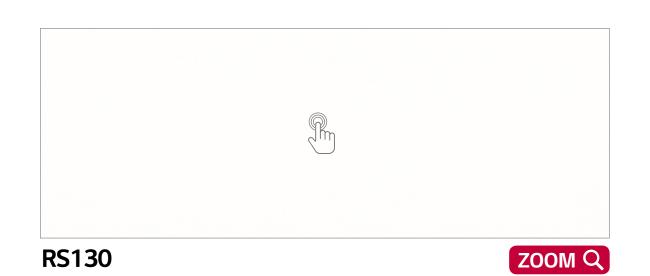


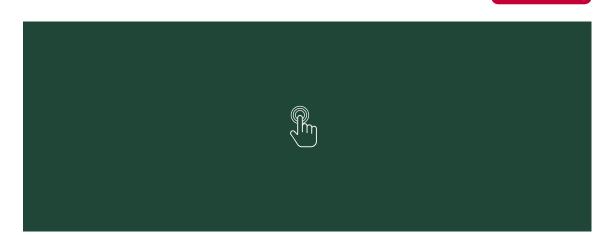


Domestic & Overseas









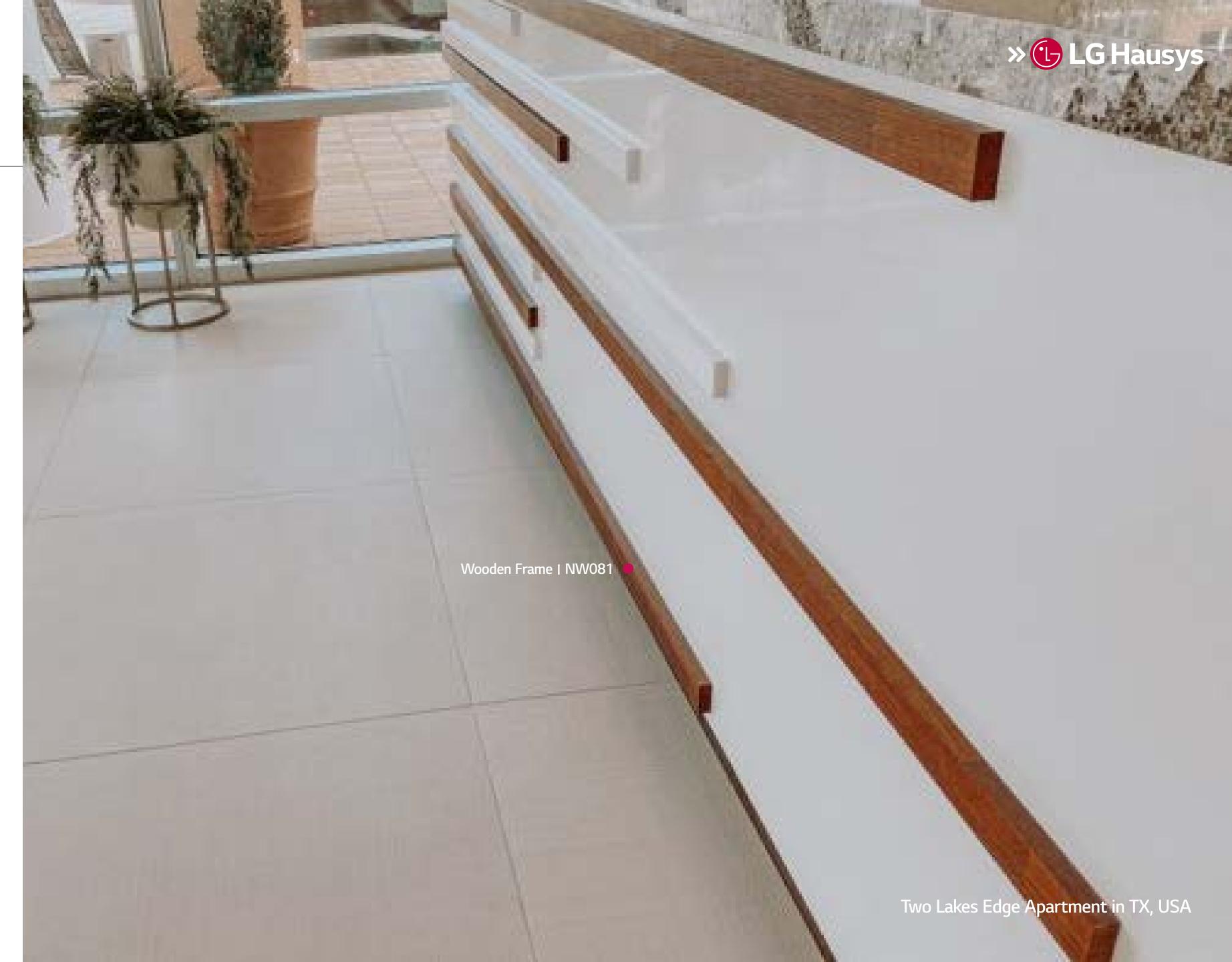




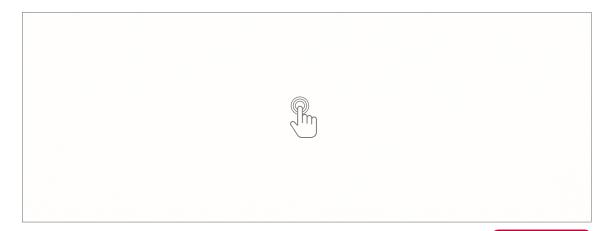
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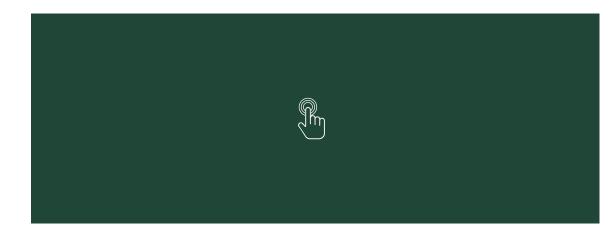
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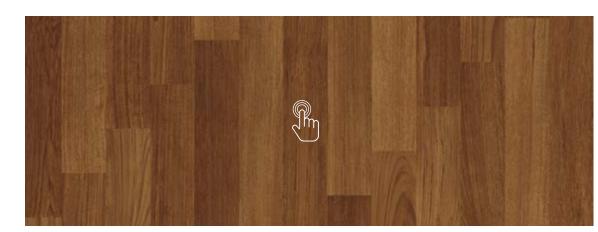




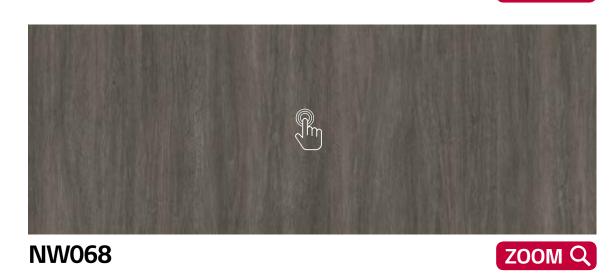
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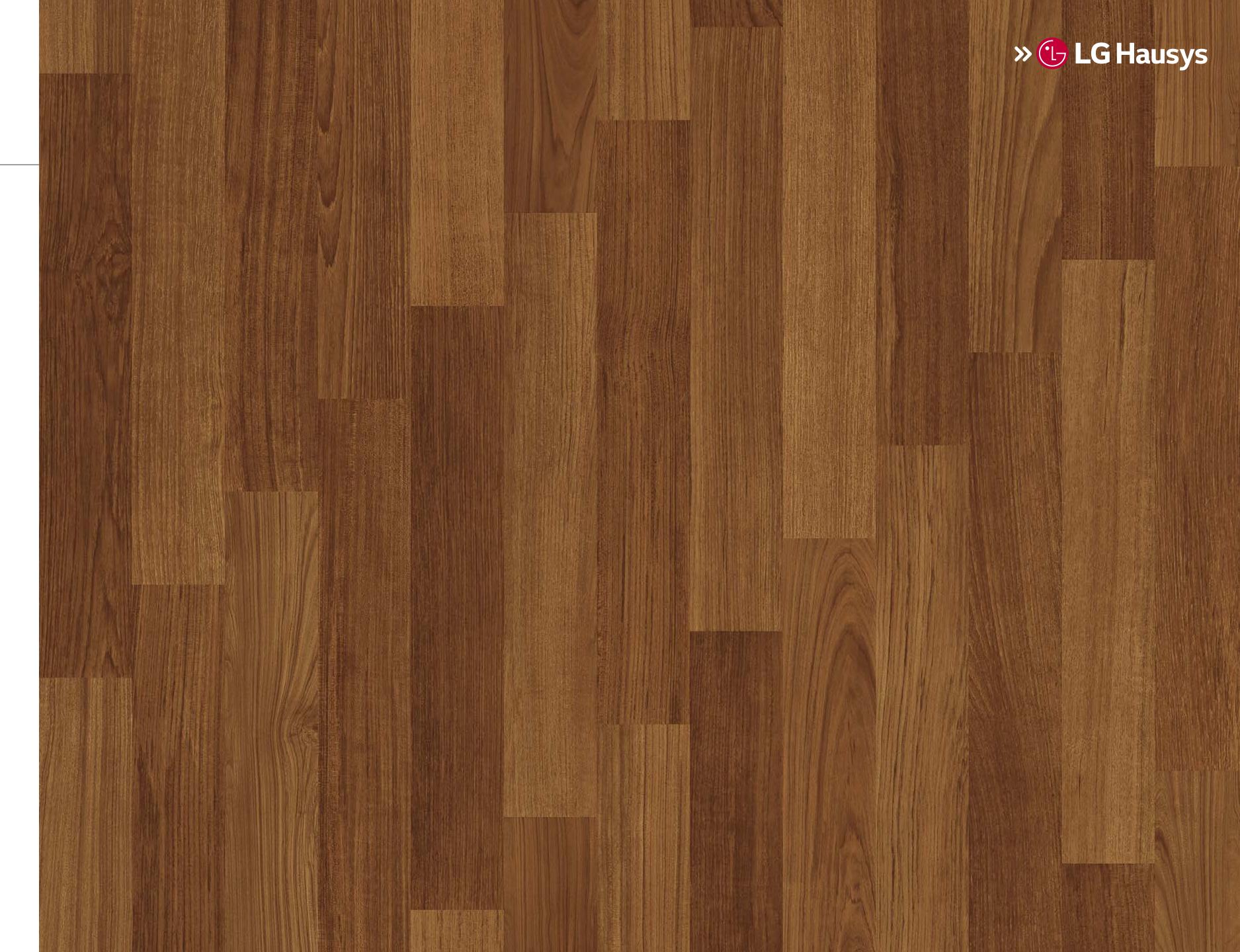


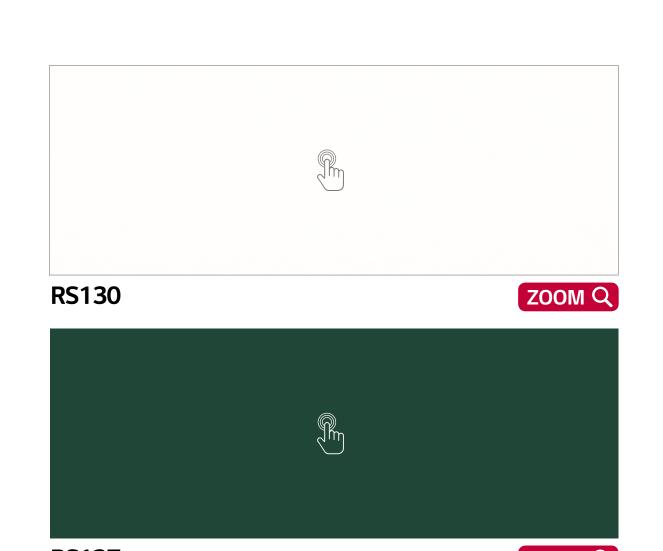
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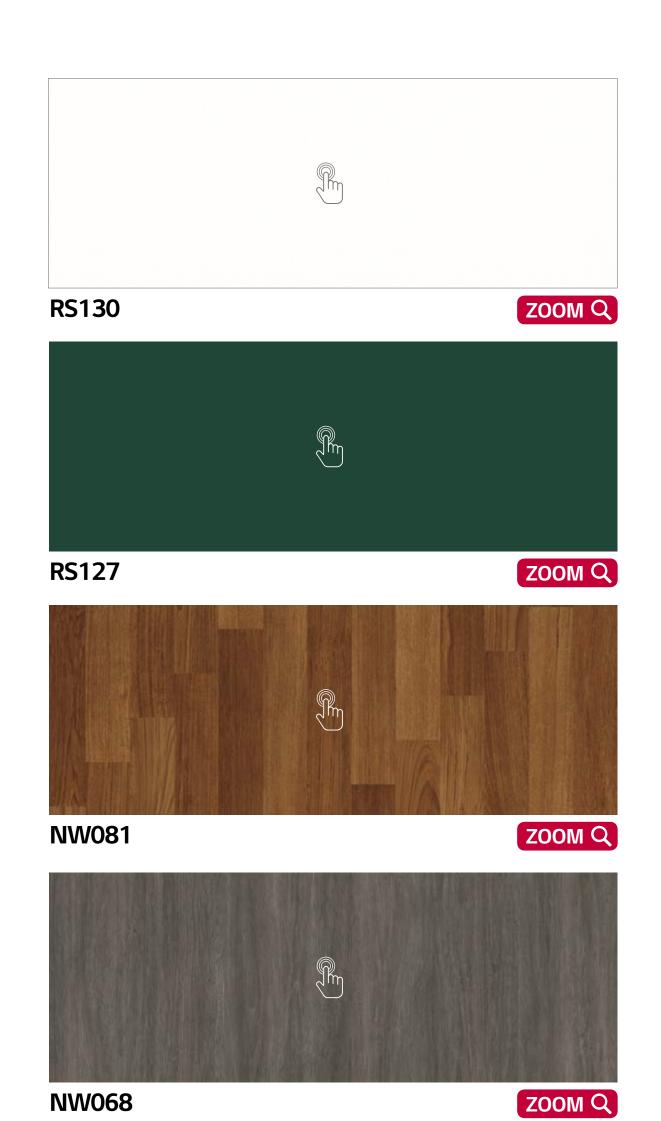












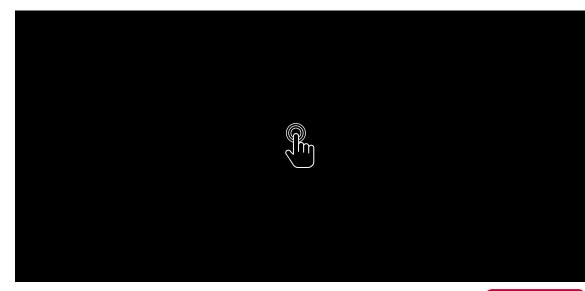




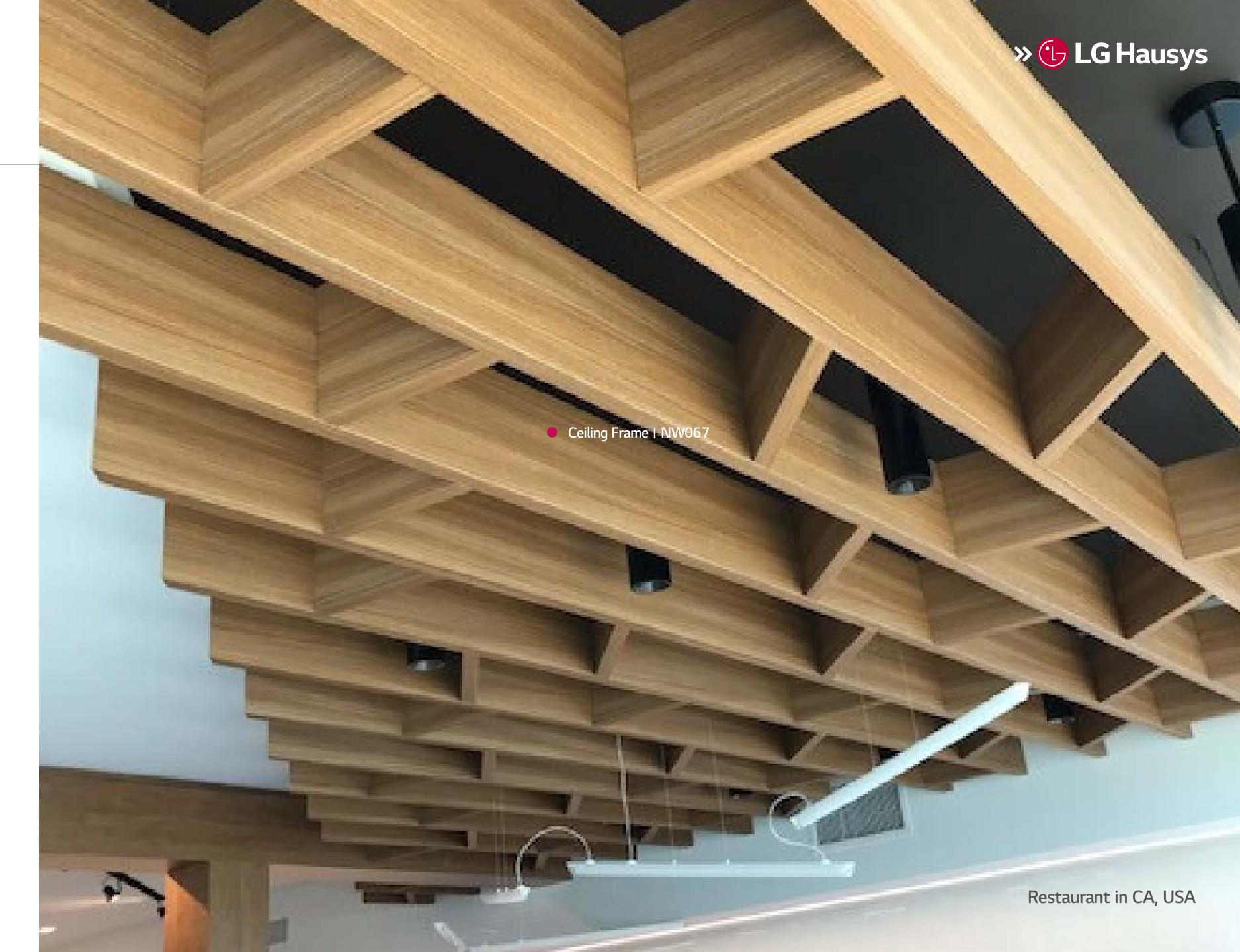
Domestic & Overseas



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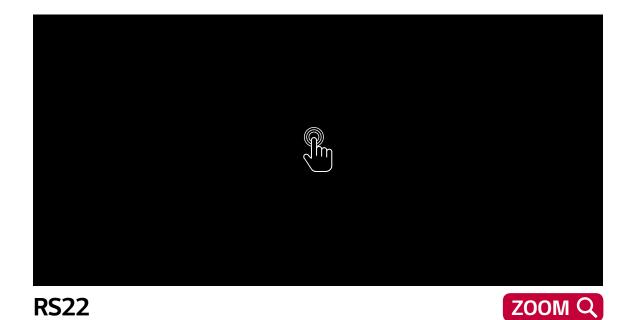


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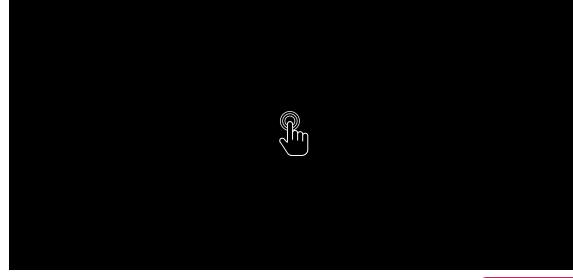




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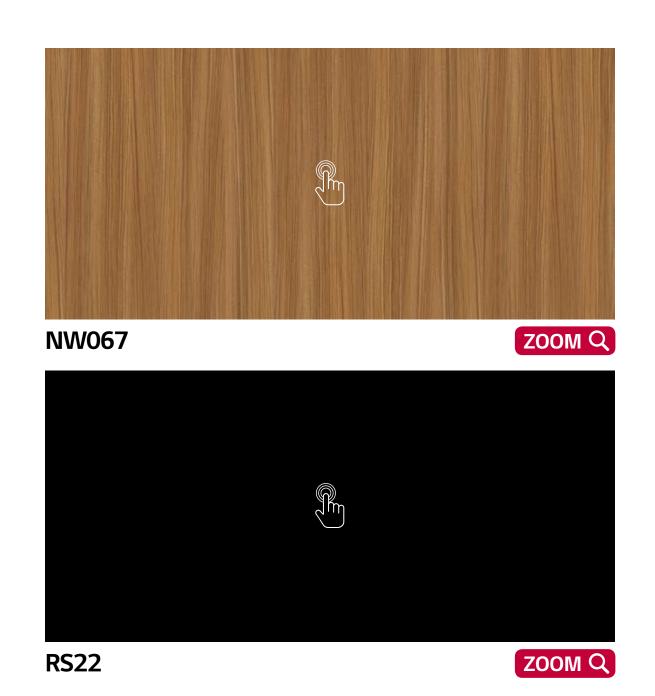
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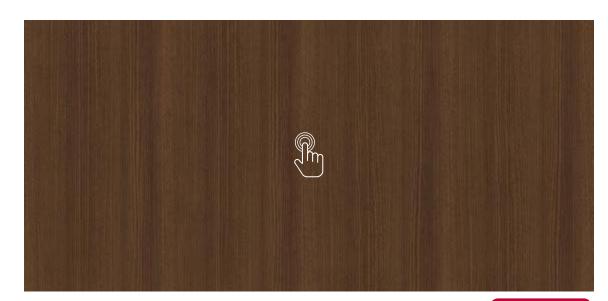
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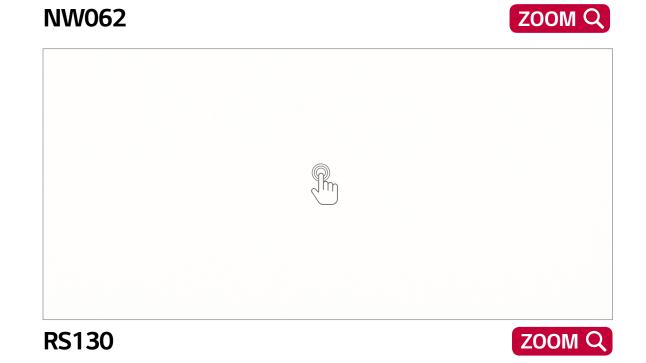






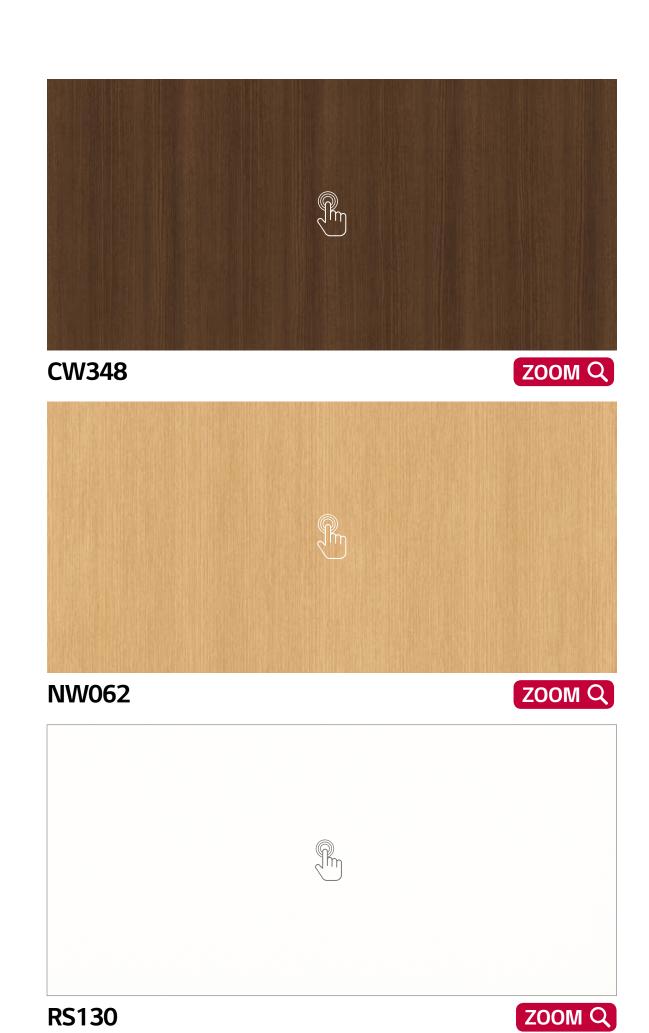










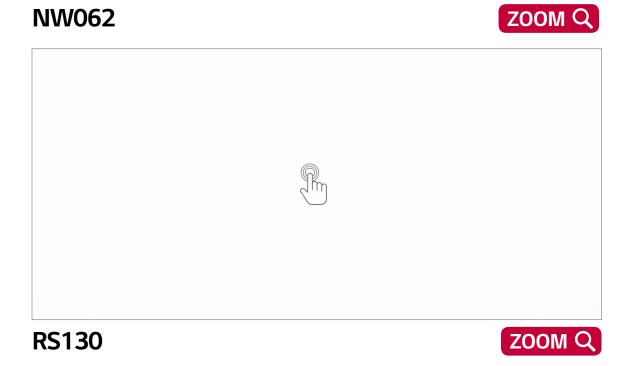






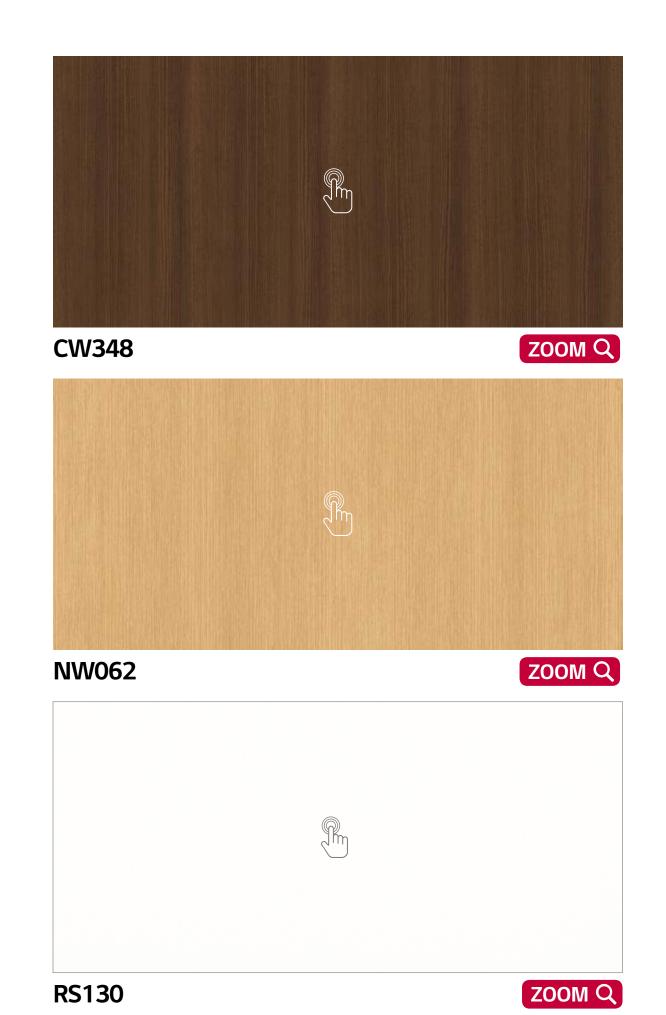










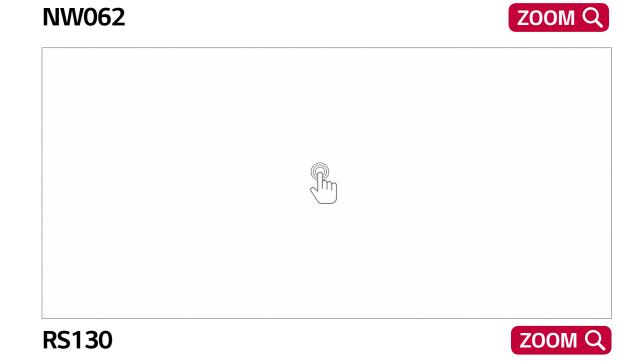






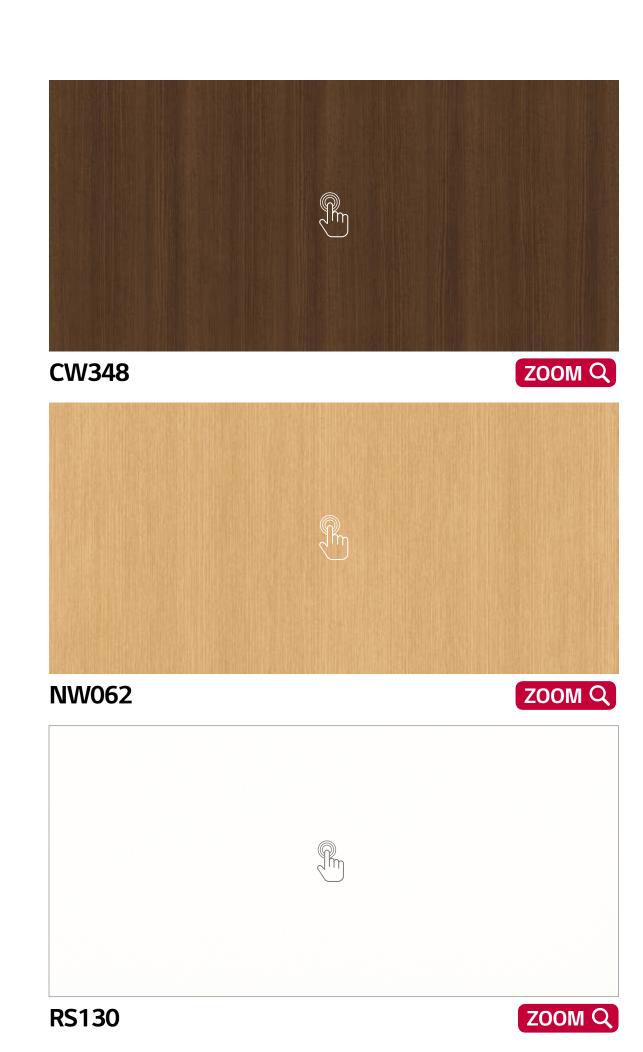










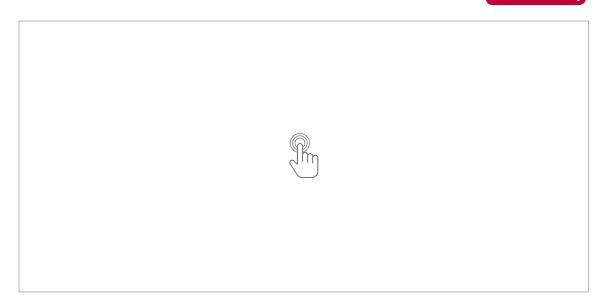




Domestic & Overseas



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RS86 ZOOM Q

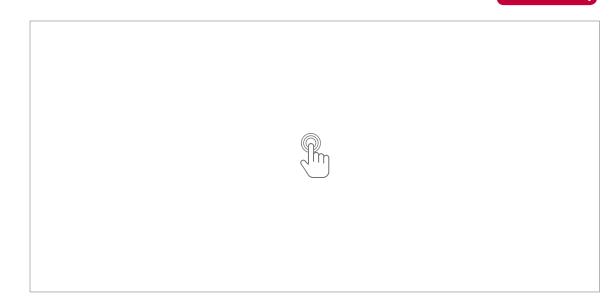








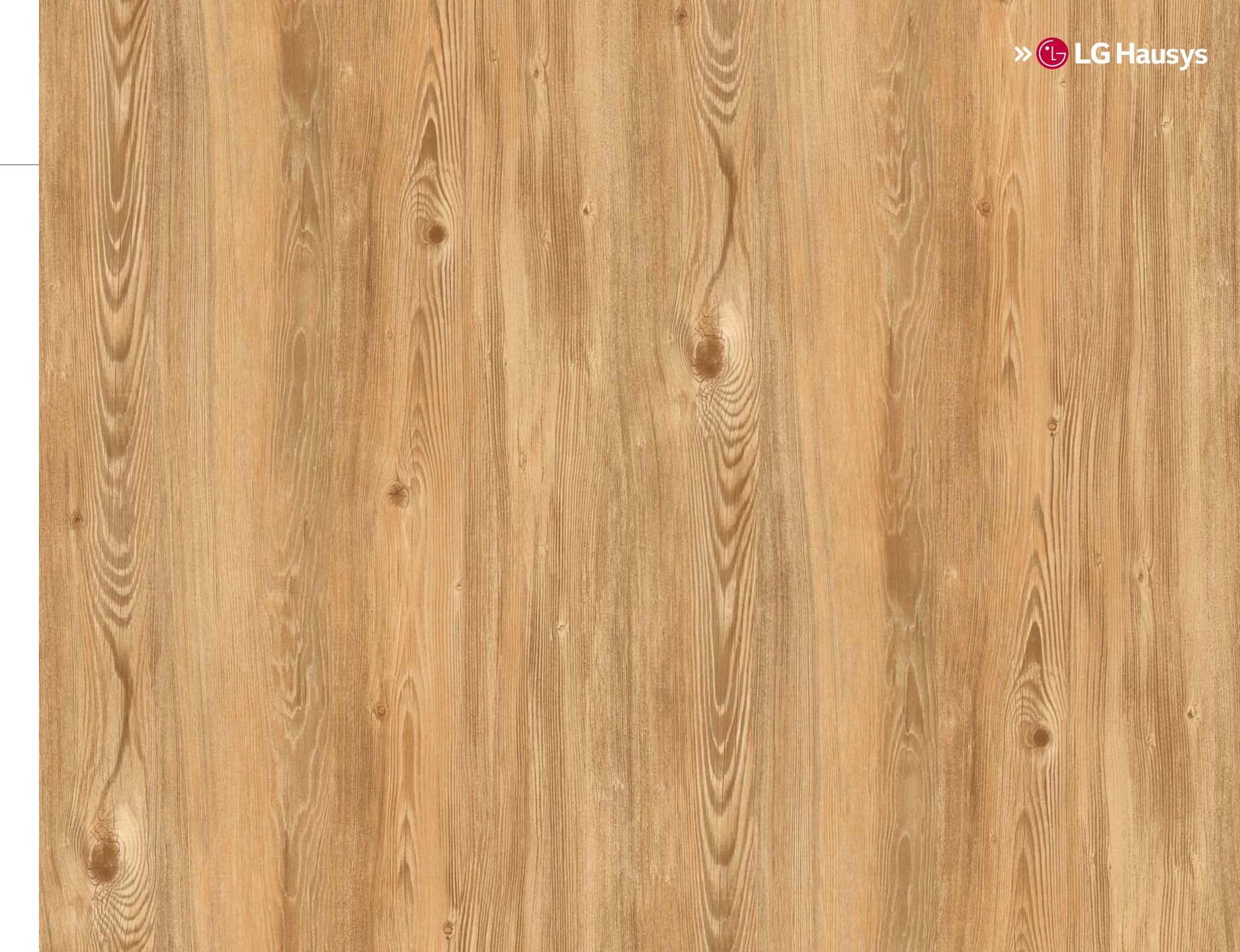
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RS86

ZOOM Q

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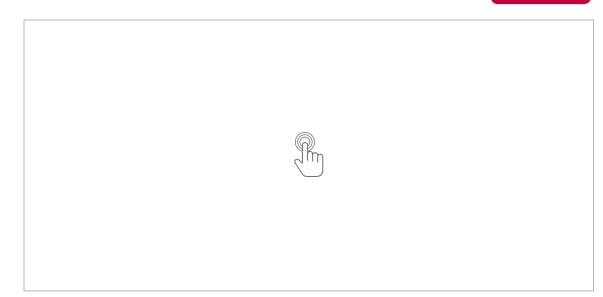




Domestic & Overseas



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RS86 ZOOM Q

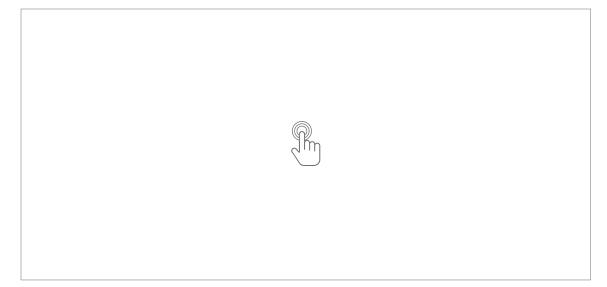








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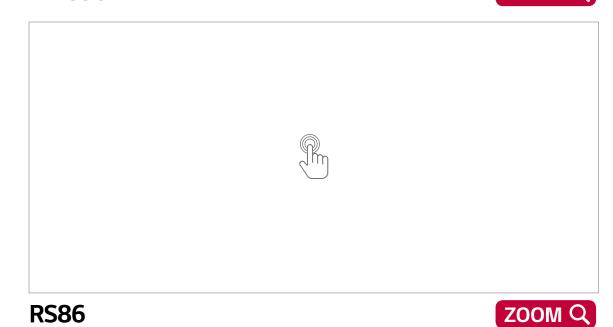




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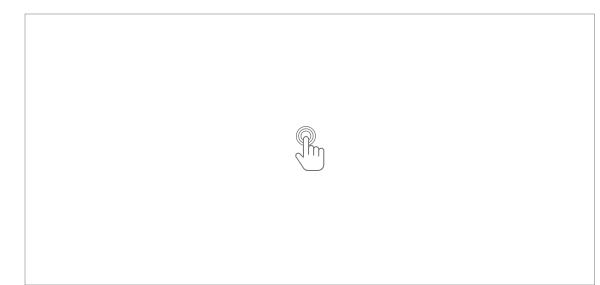




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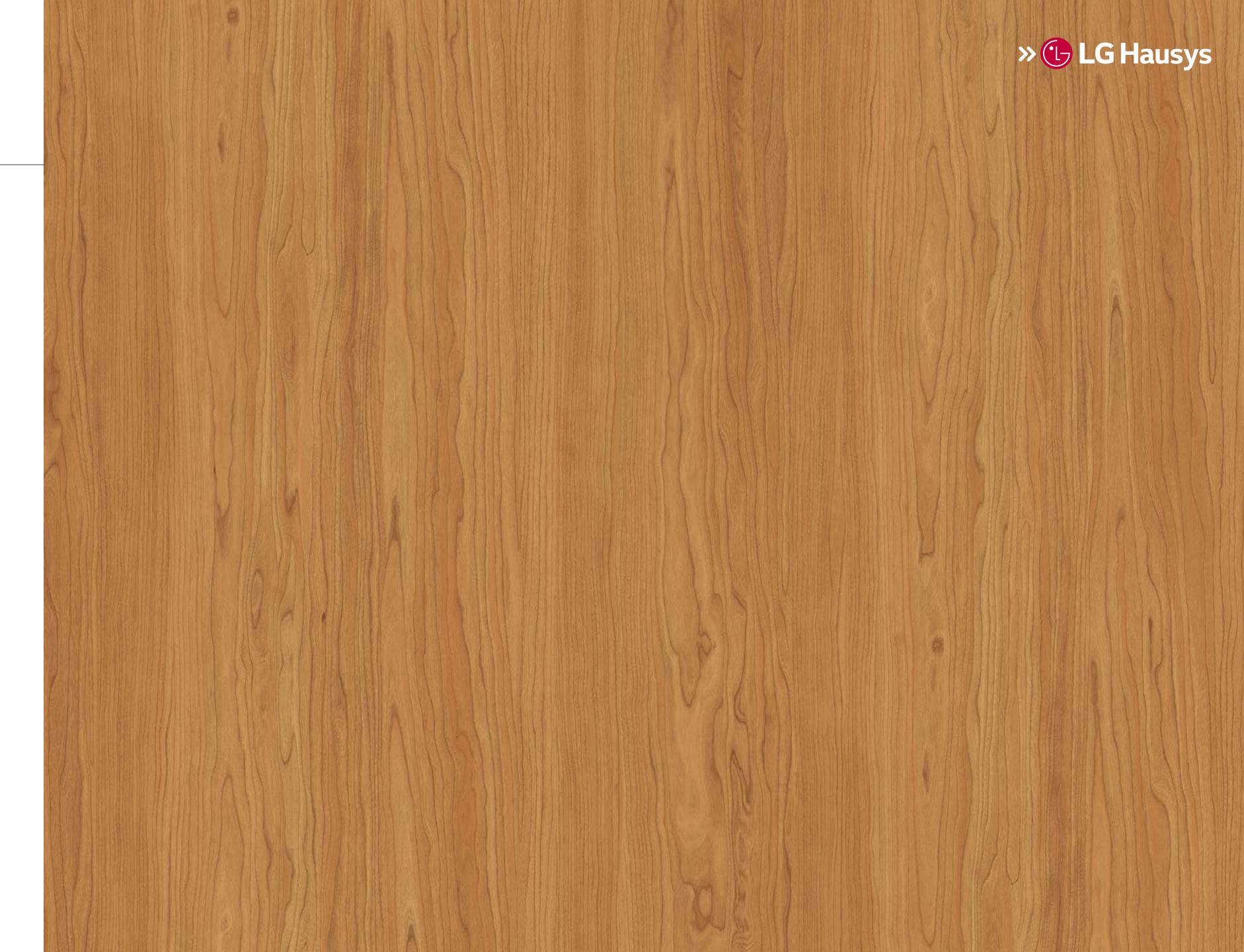


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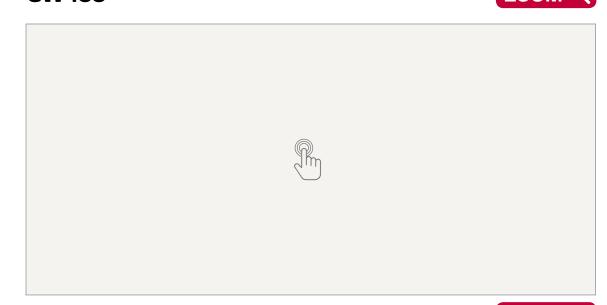




Domestic & Overseas



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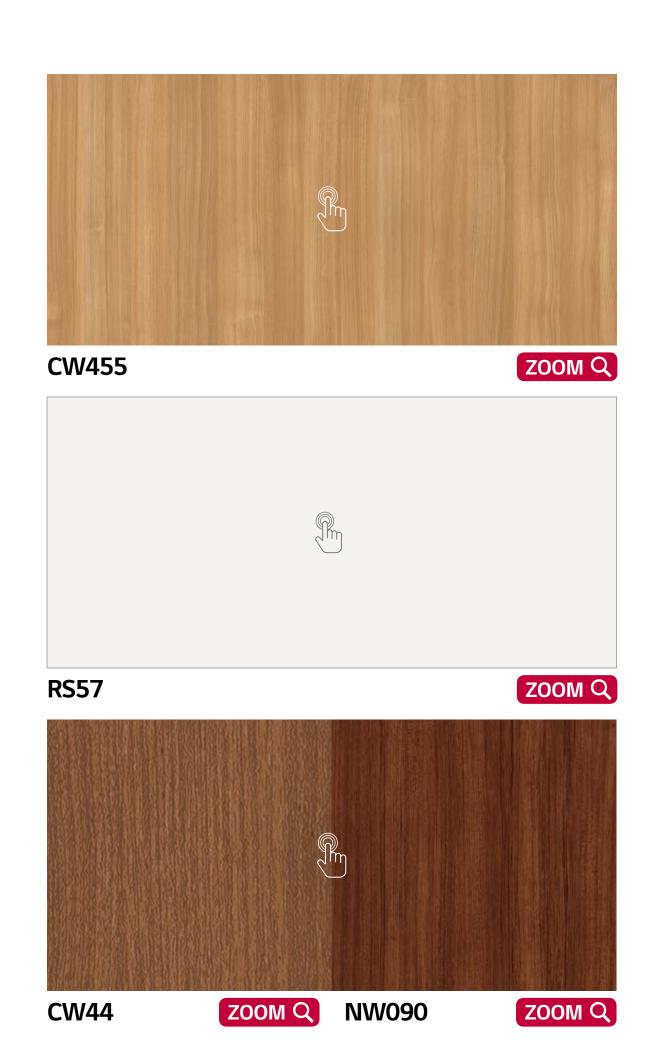


RS57 ZOOM Q









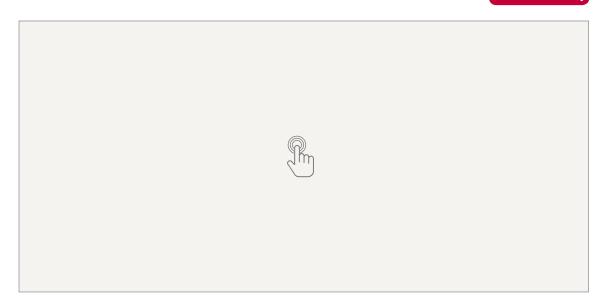




Domestic & Overseas



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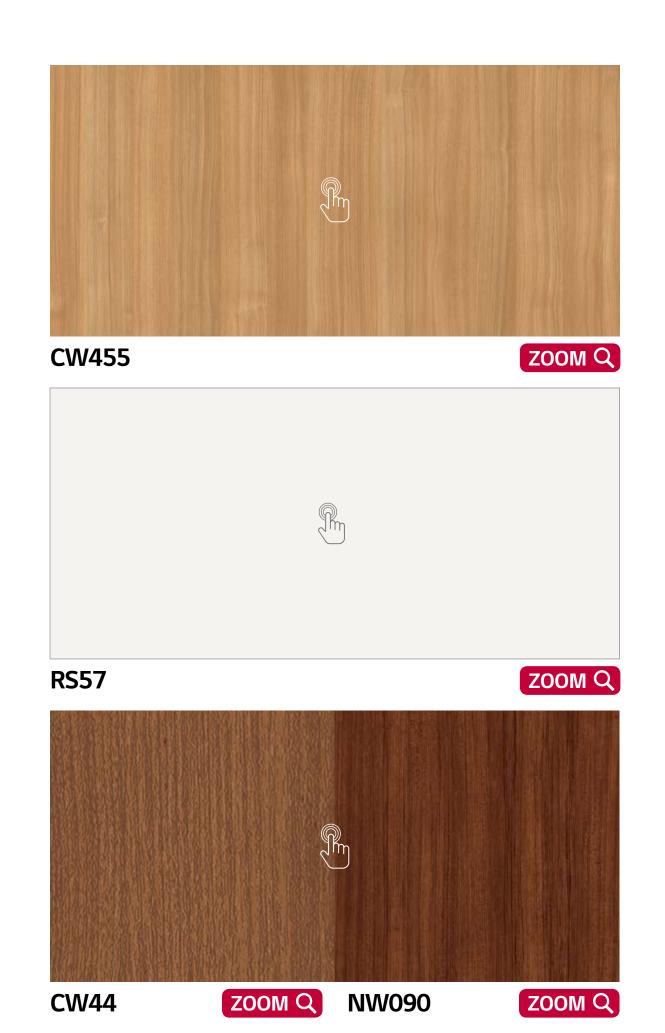


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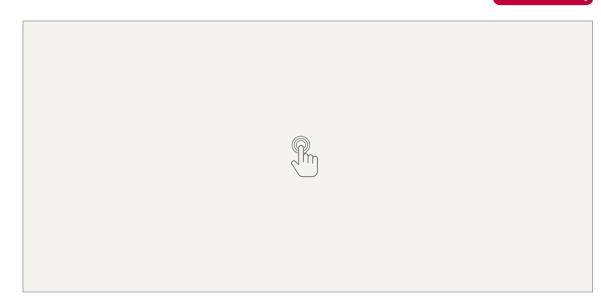




Domestic & Overseas



CW455 ZOOM Q



RS57 ZOOM Q

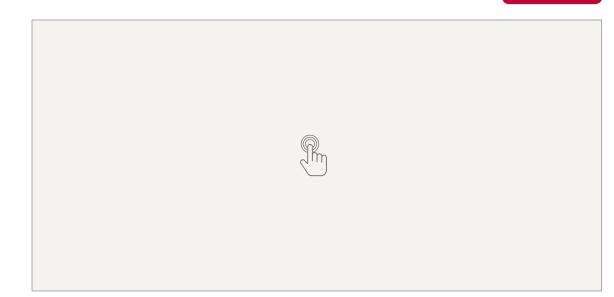






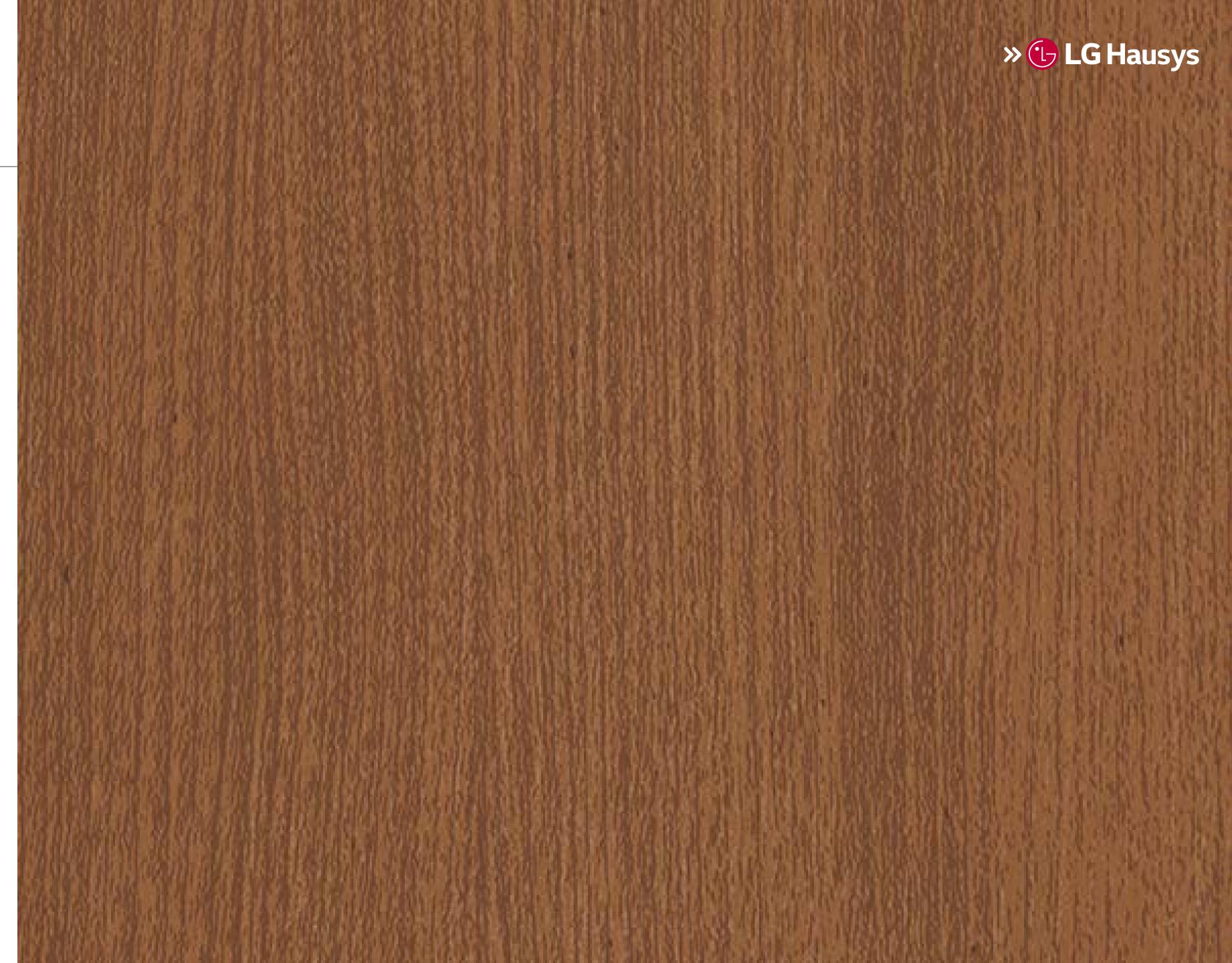


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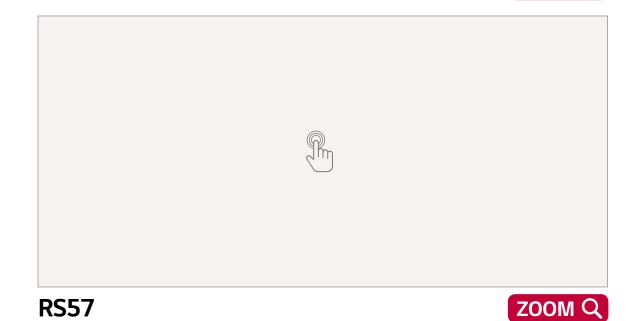






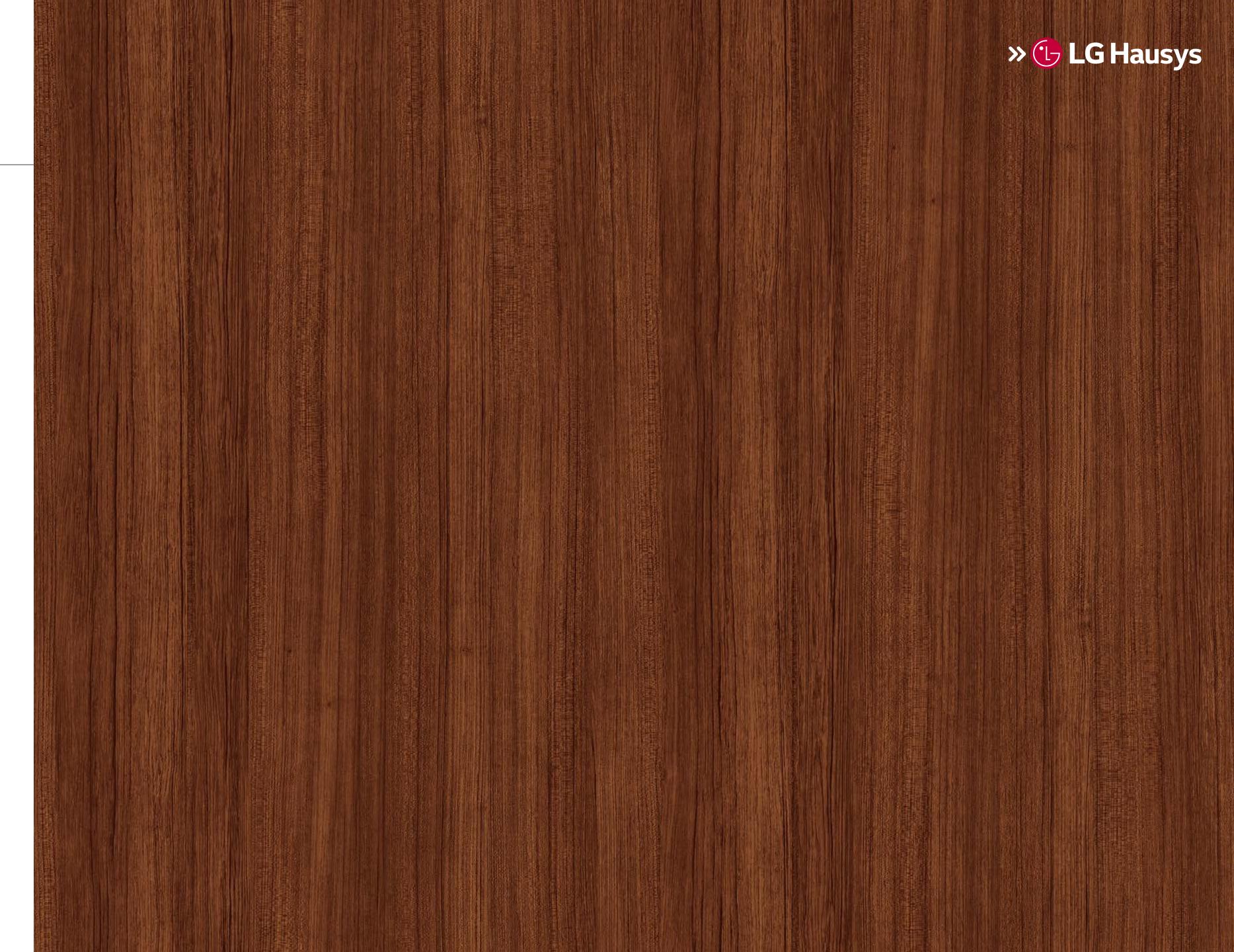


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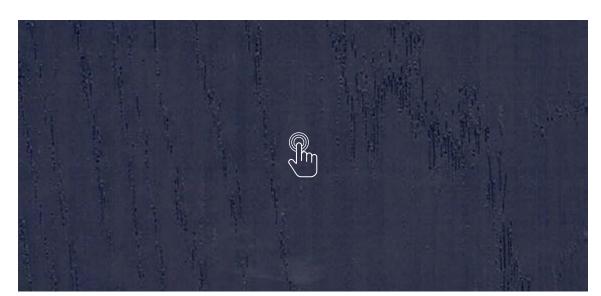
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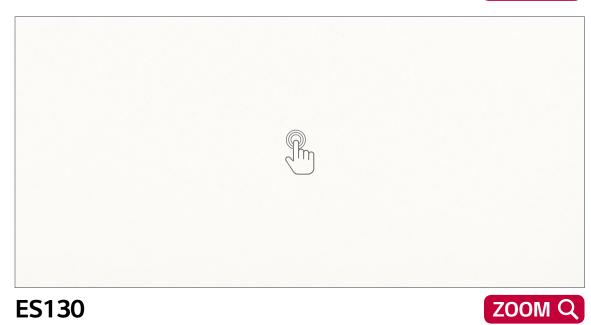
Residential Building



RGM06 ZOOM Q



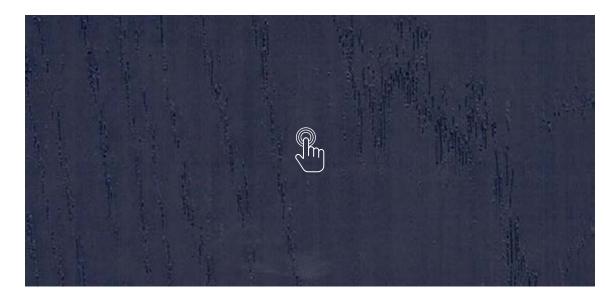
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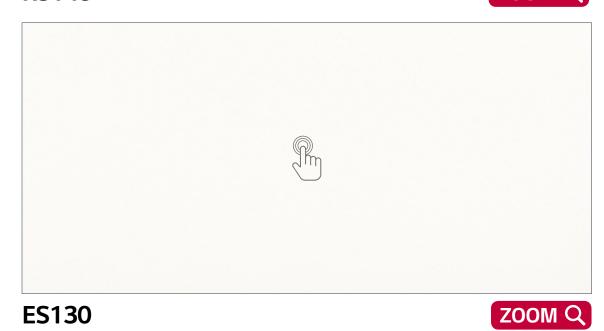
Residential Building



RGM06 ZOOM Q



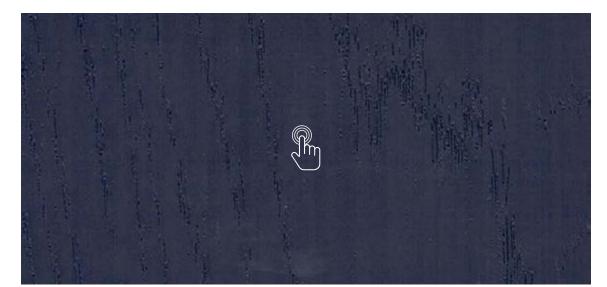
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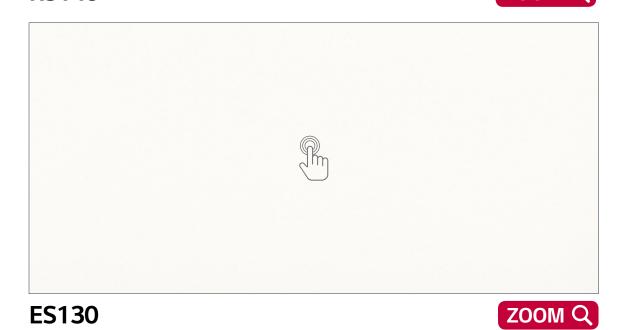
Residential Building



RGM06 ZOOM Q



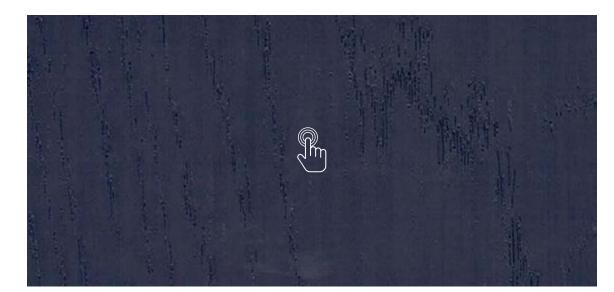
RS145 ZOOM Q







Residential Building



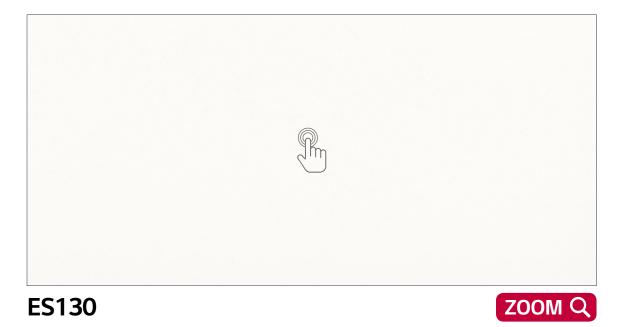
RGM06

ZOOM Q



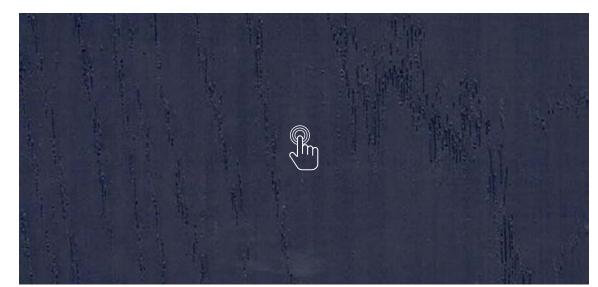
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ZOOM Q





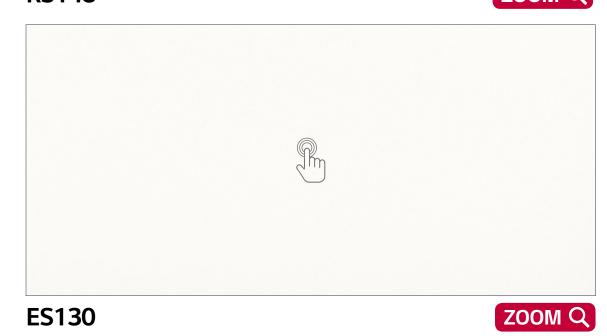




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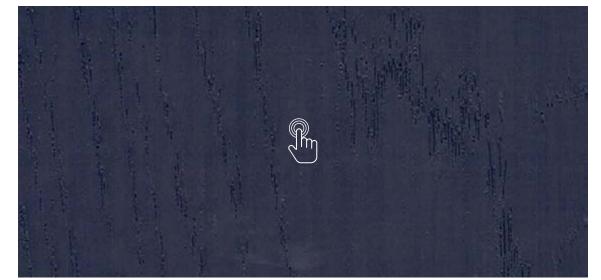
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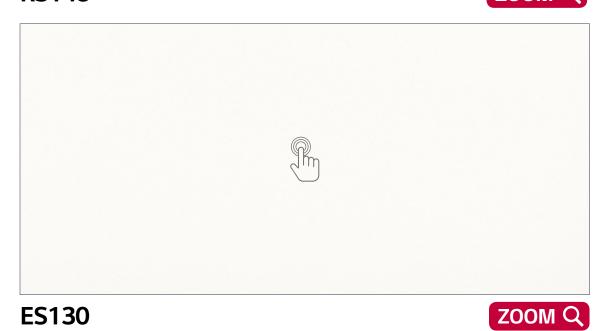
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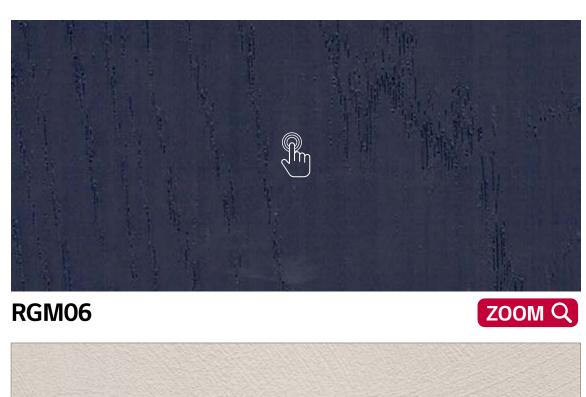


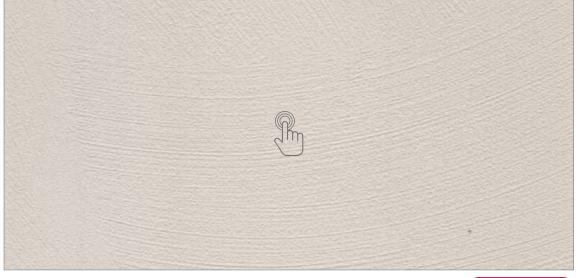
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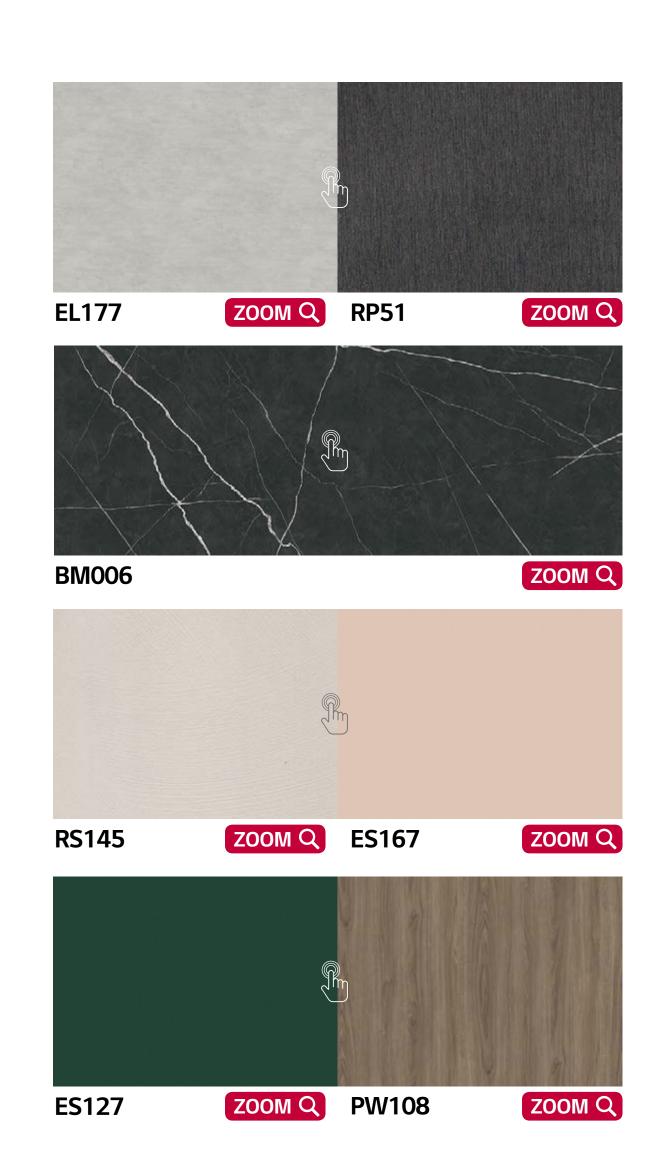






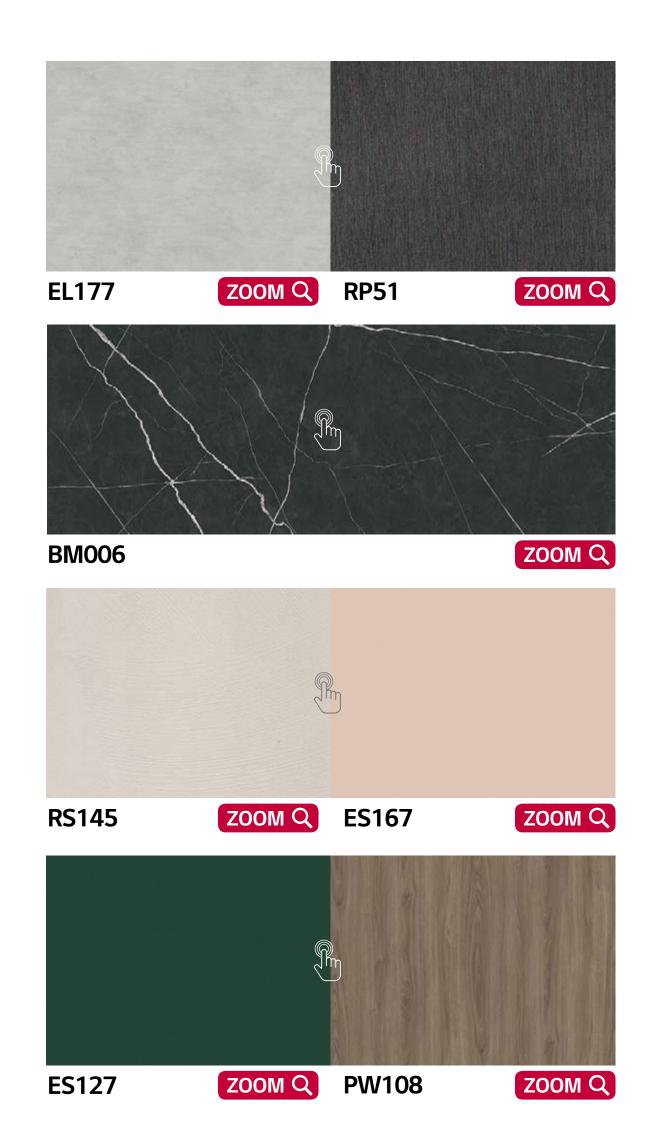






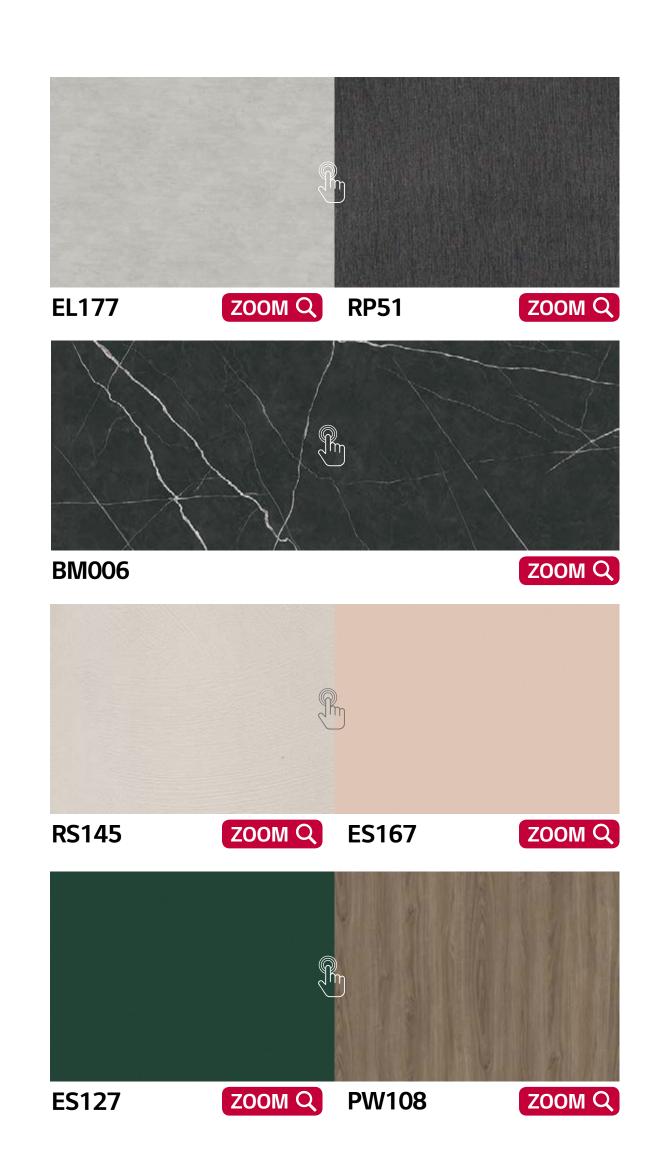




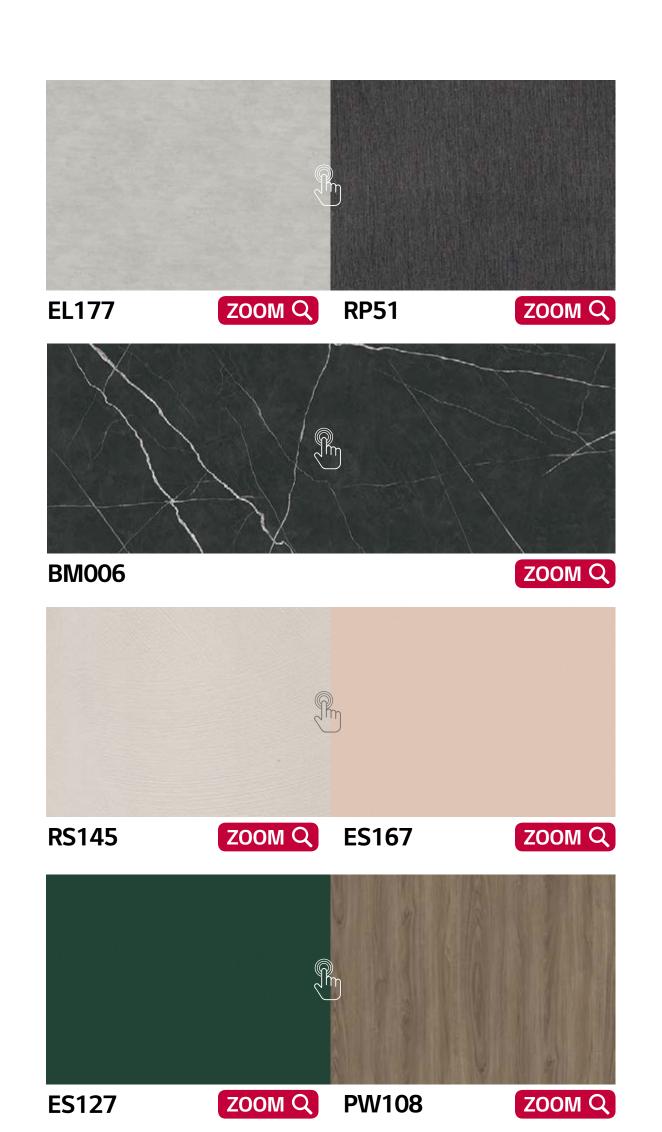




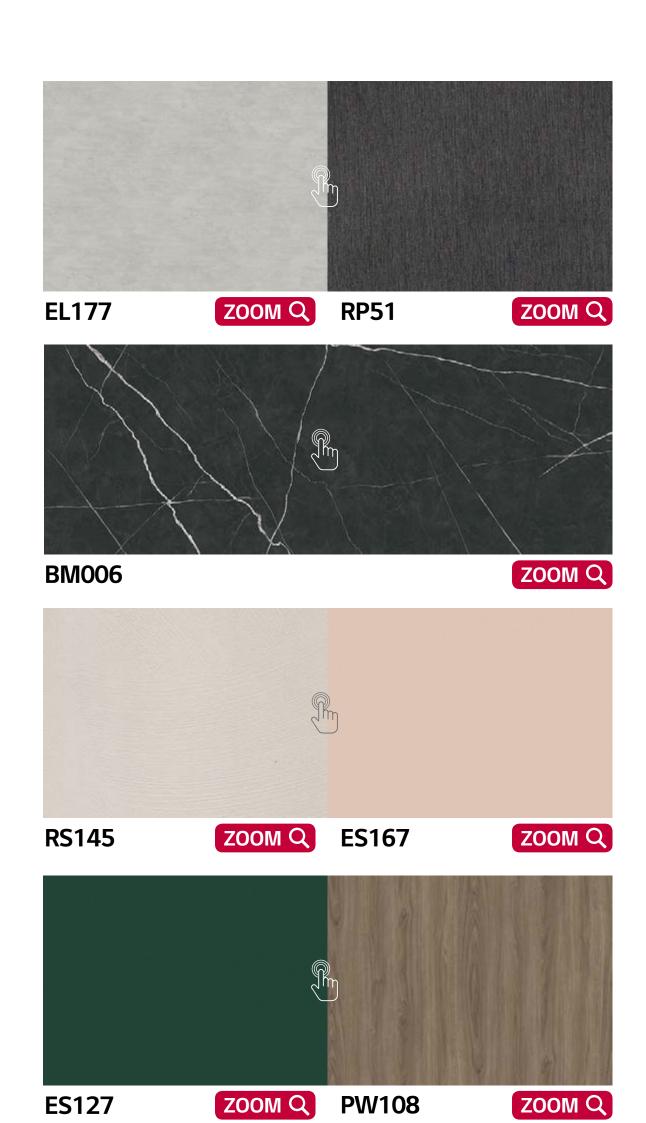


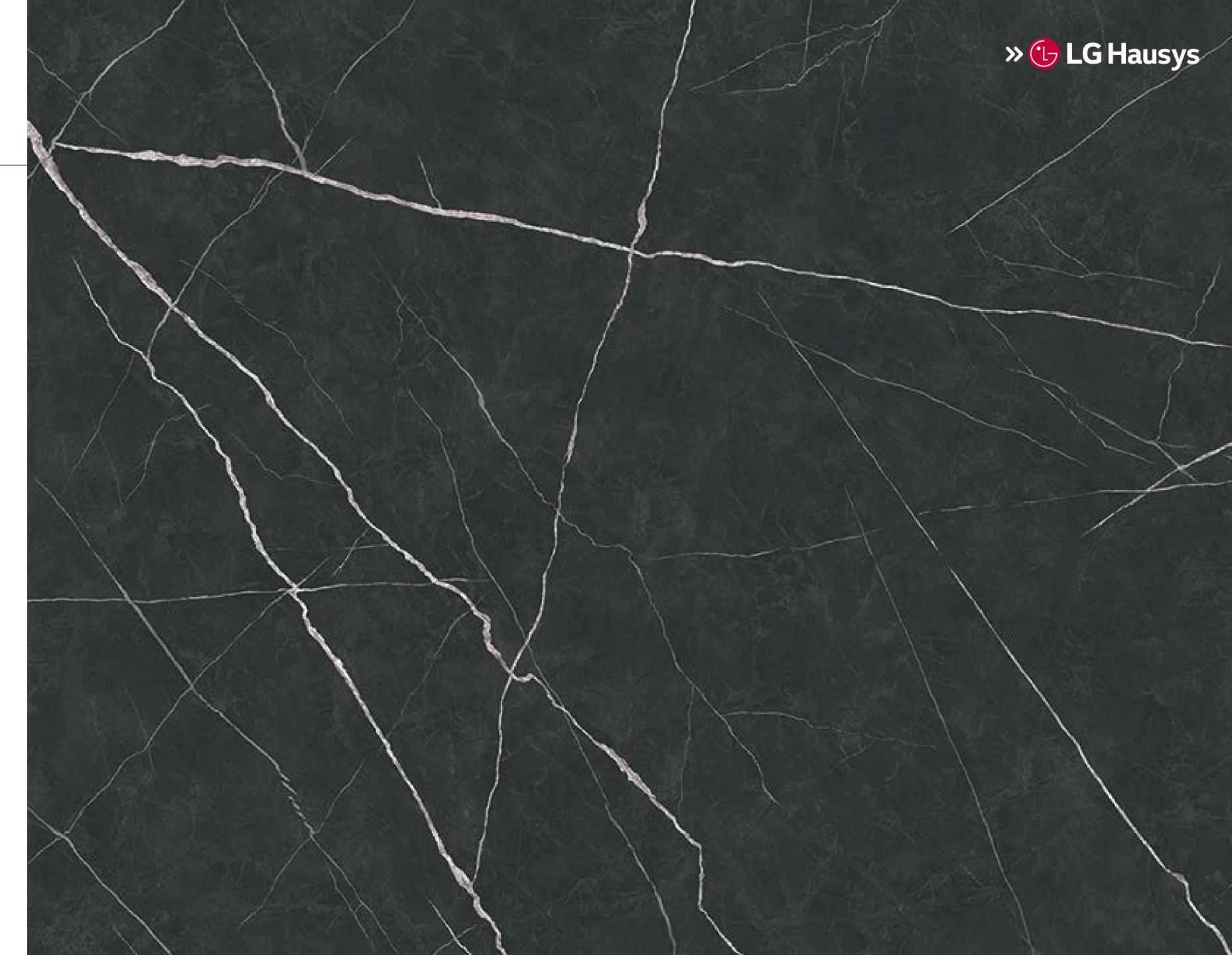








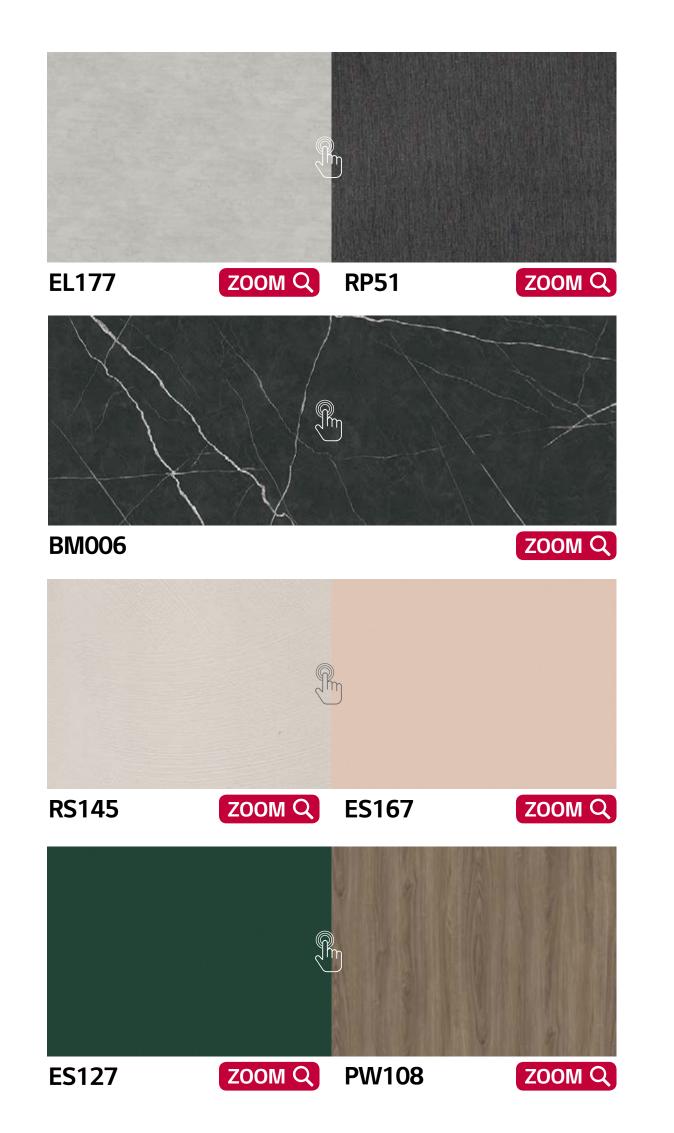




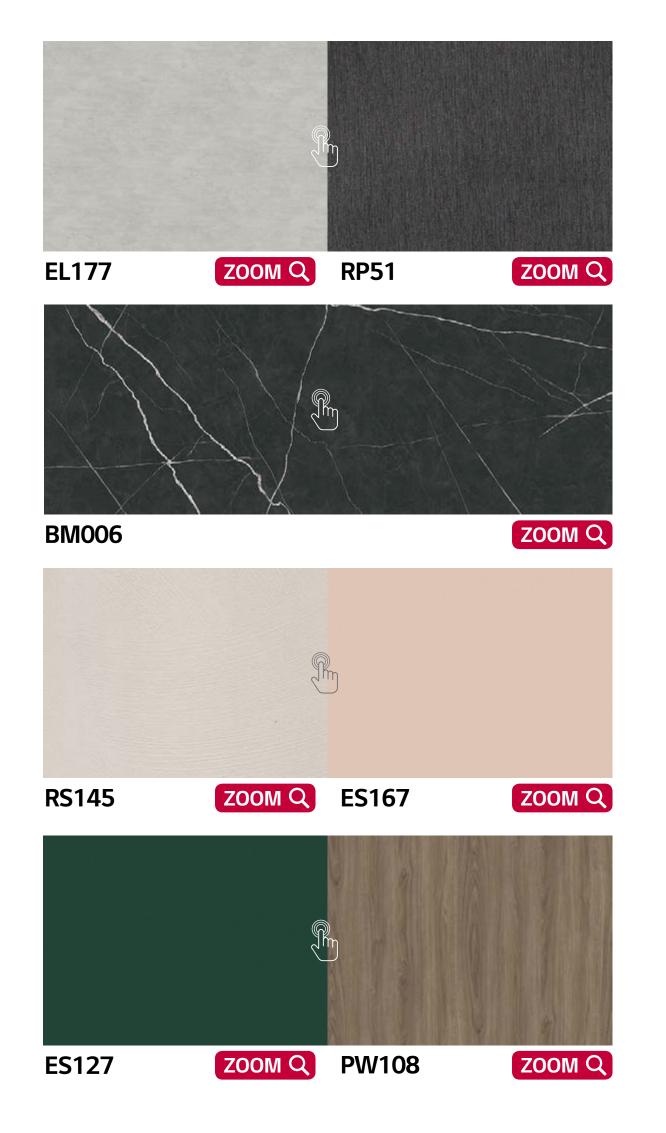




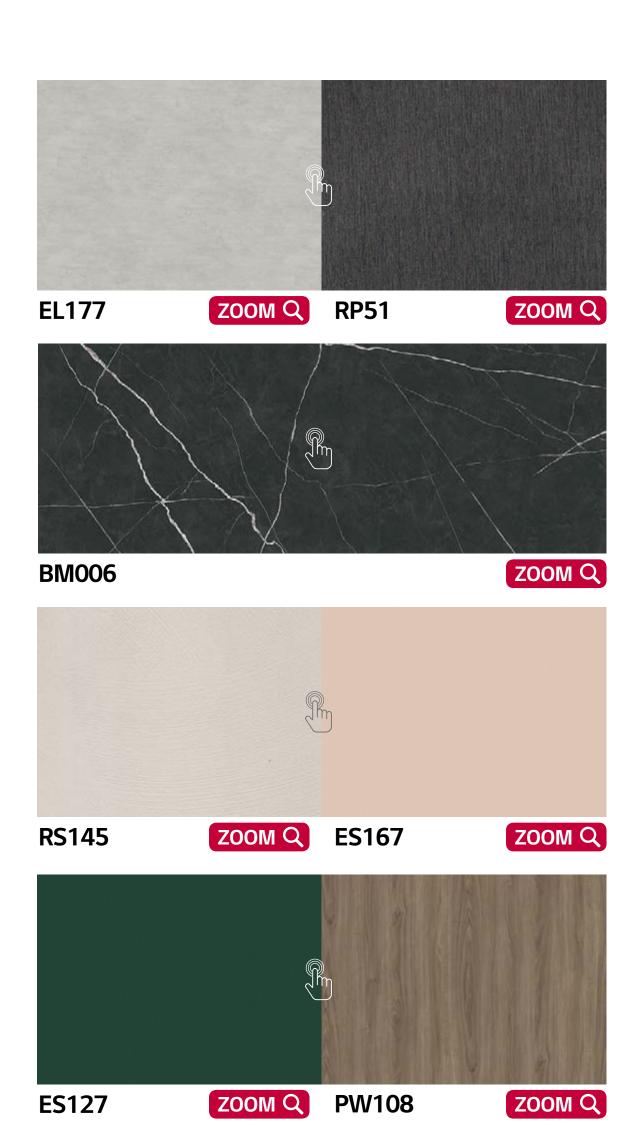




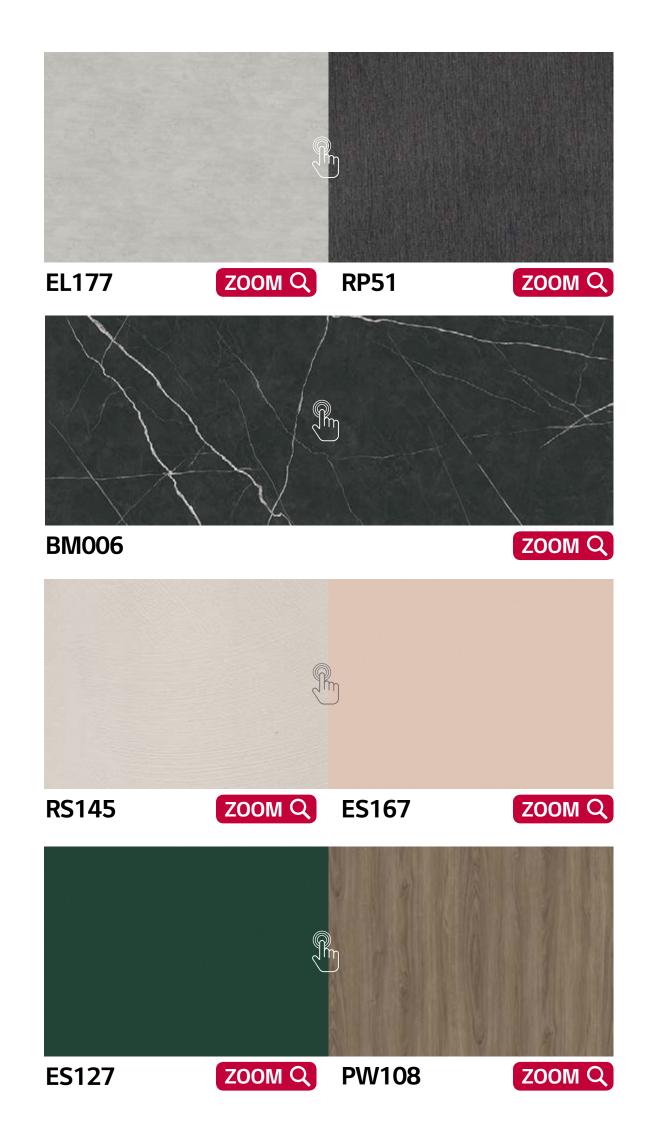






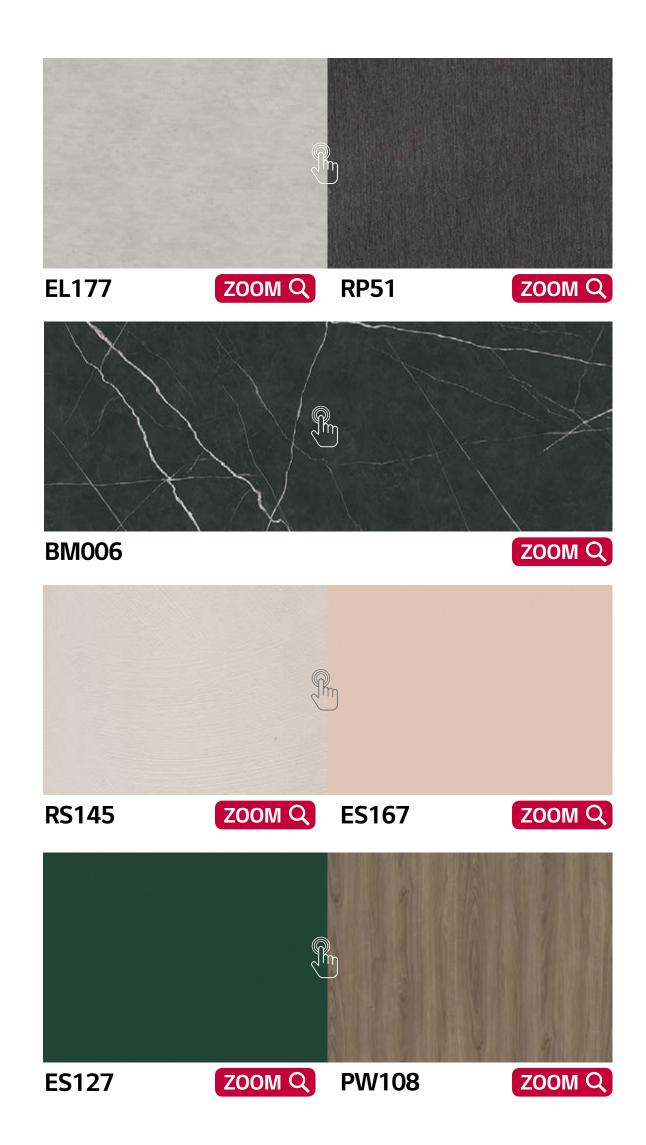




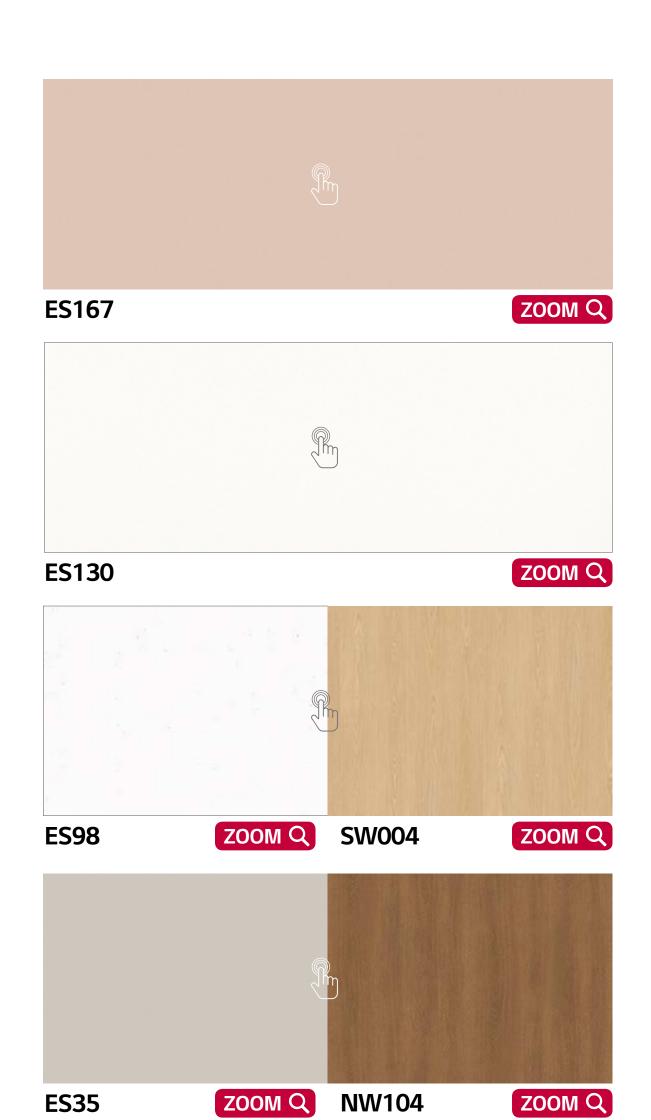




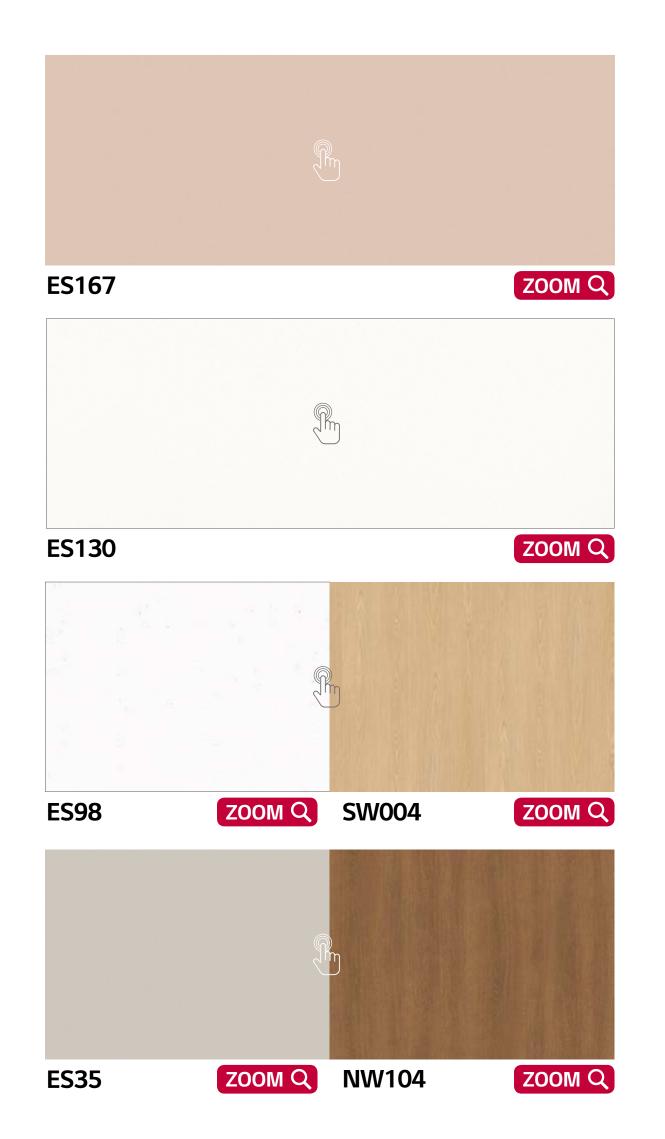




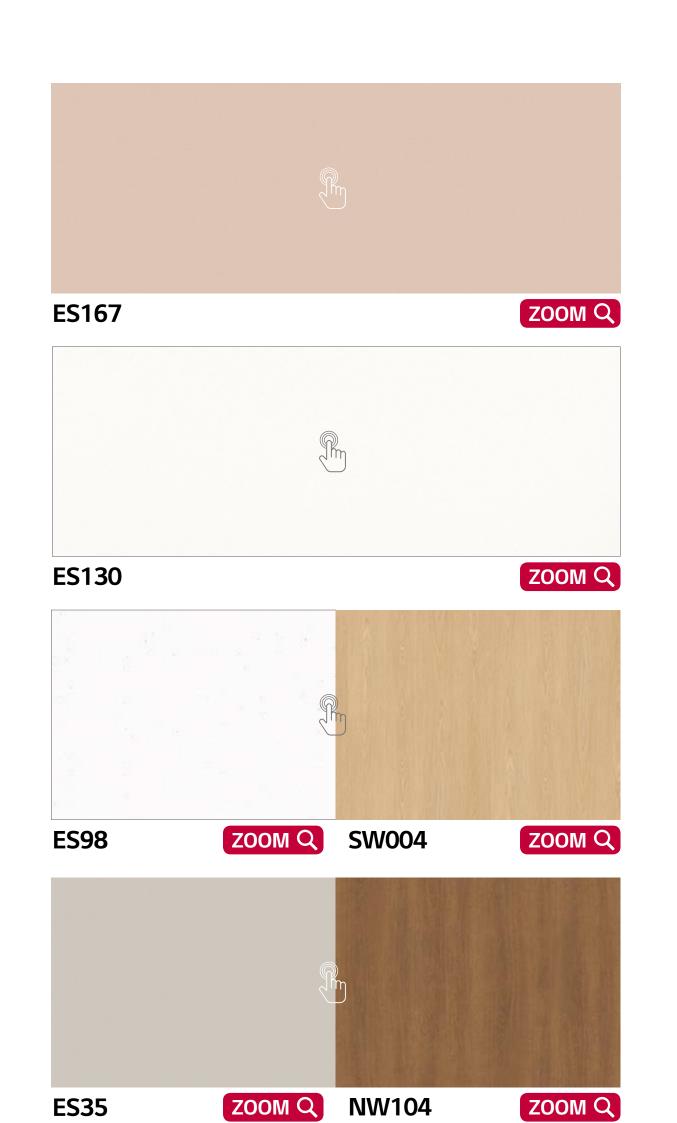






















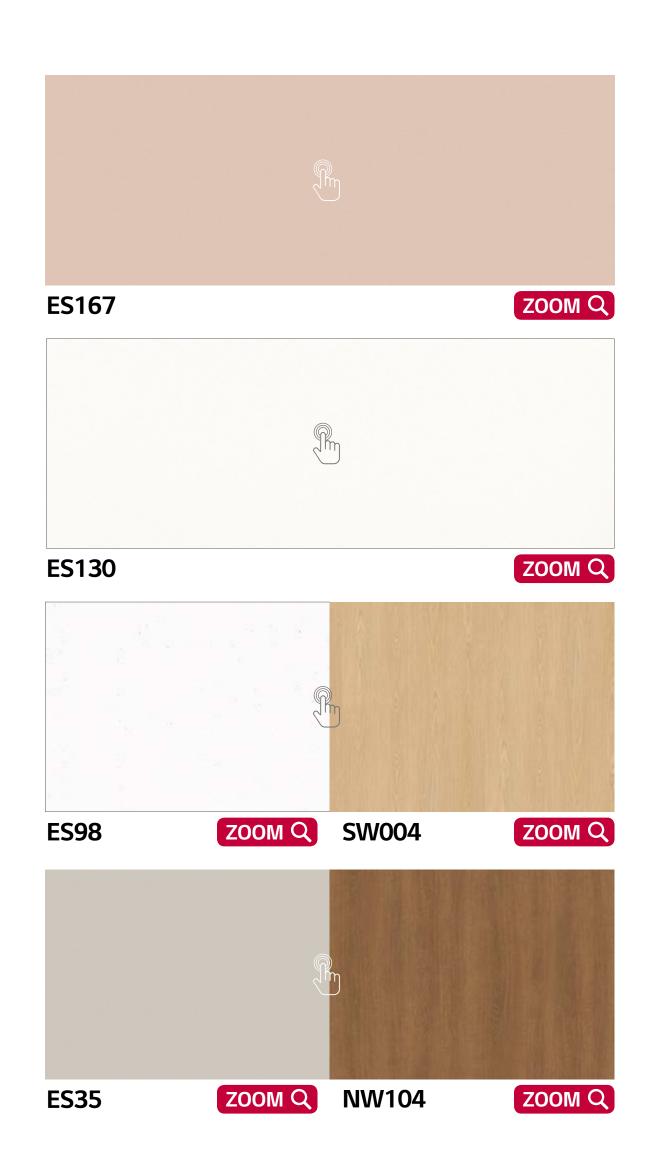






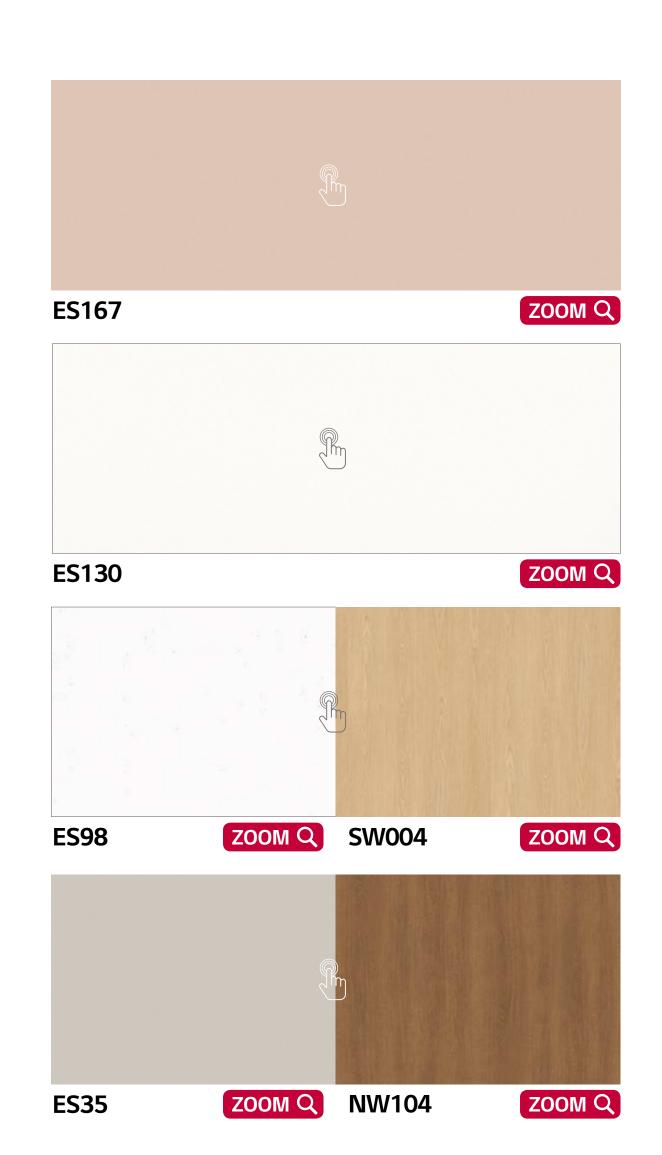












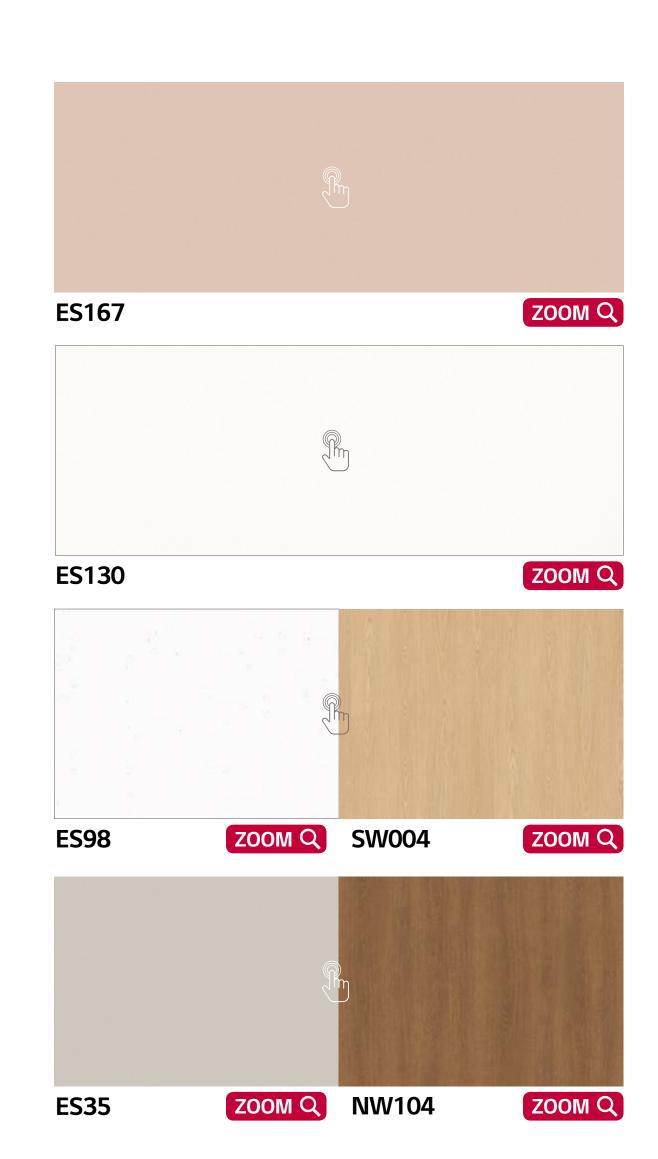


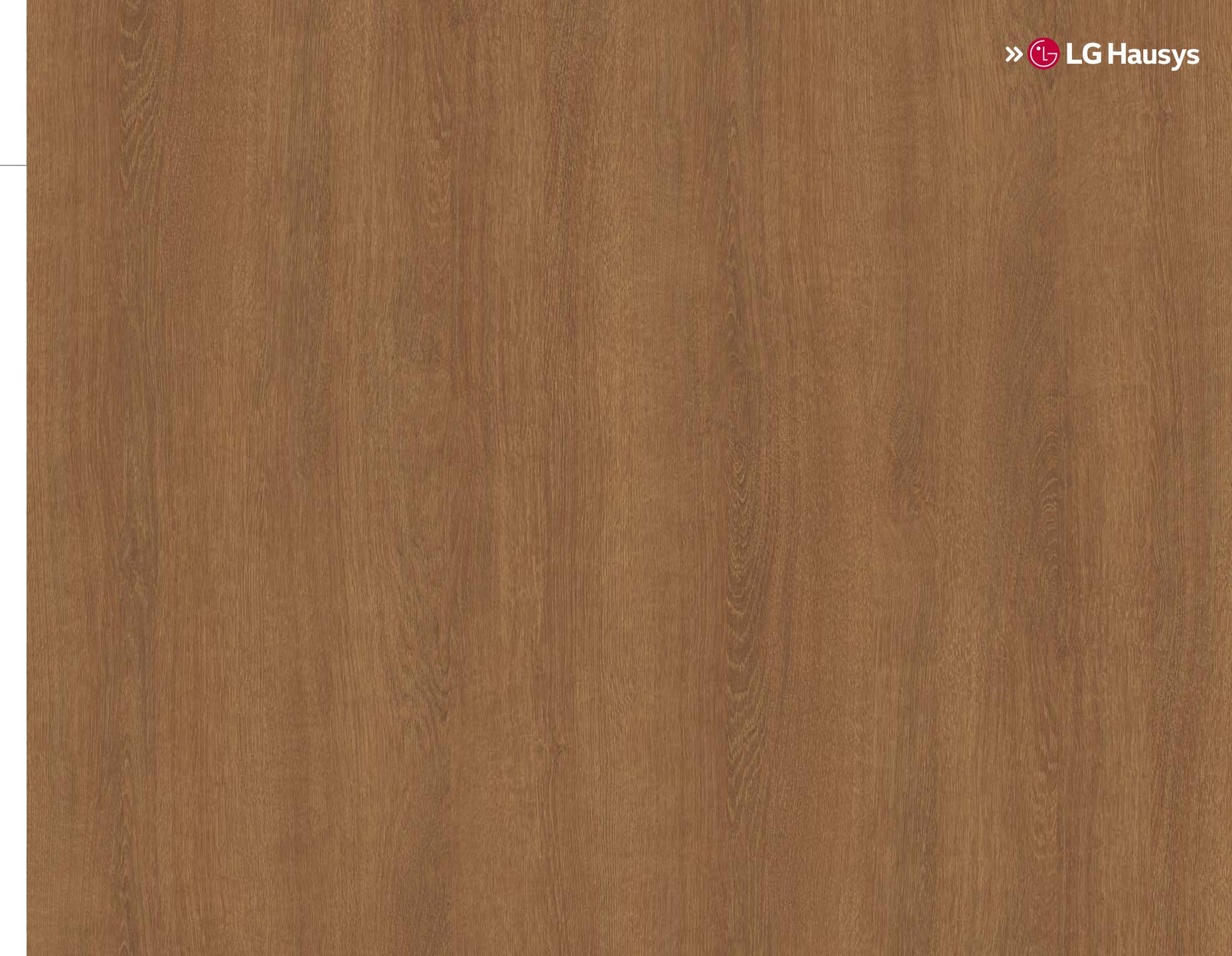




















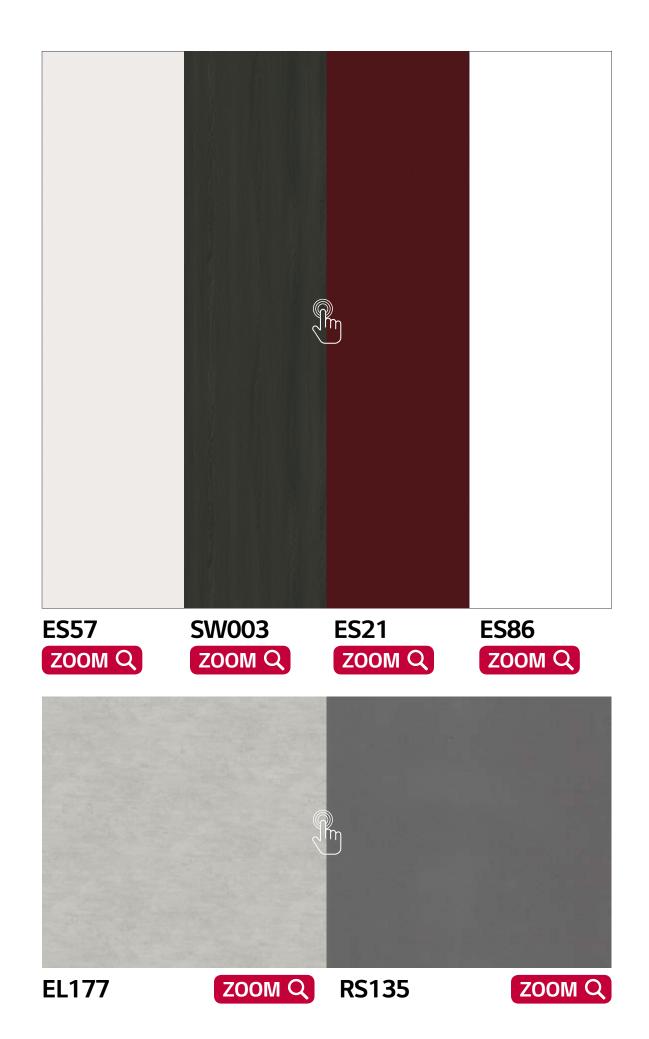


Residential Building







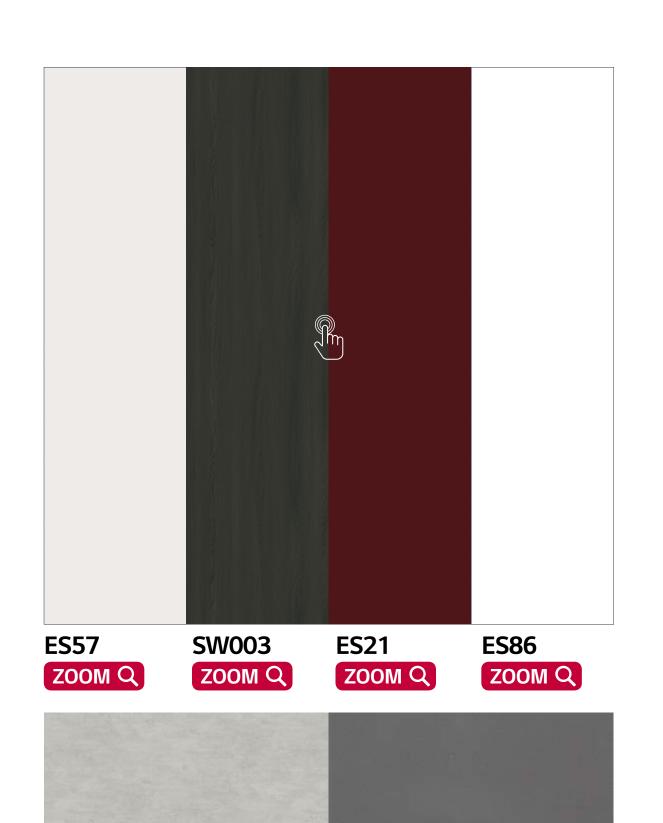






EL177

Residential Building



ZOOM Q RS135

ZOOM Q





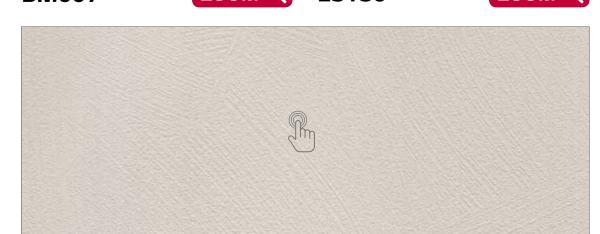




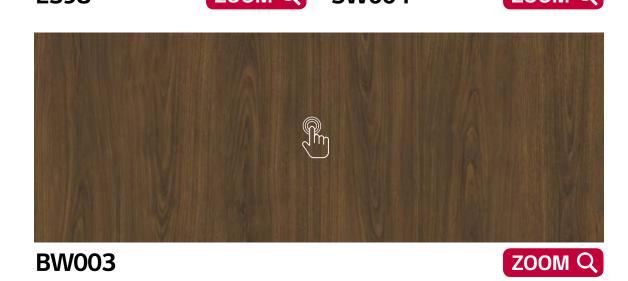
Residential Building







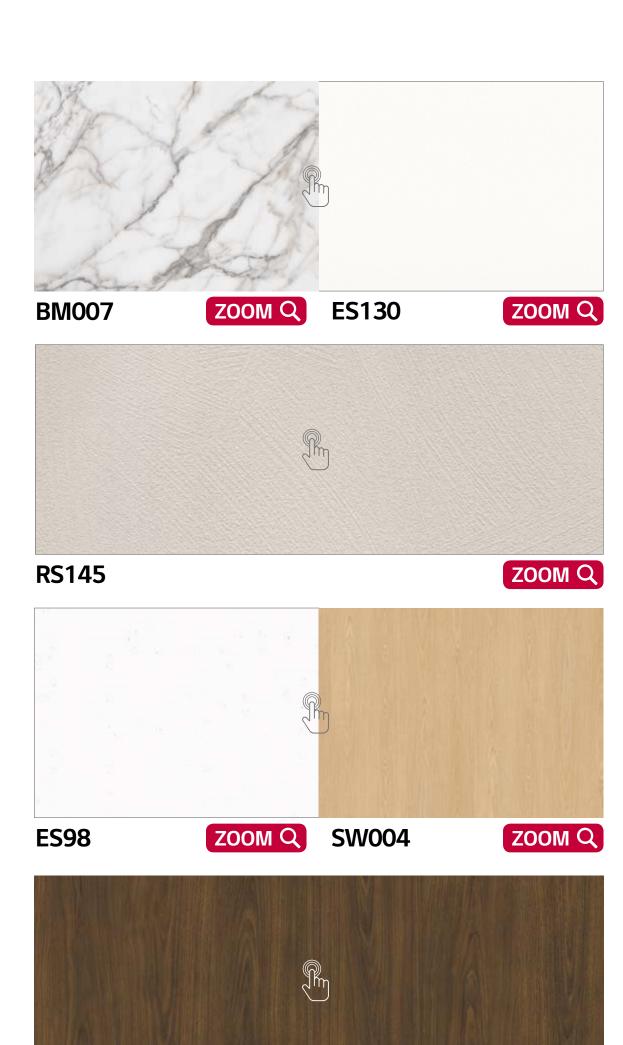






BW003

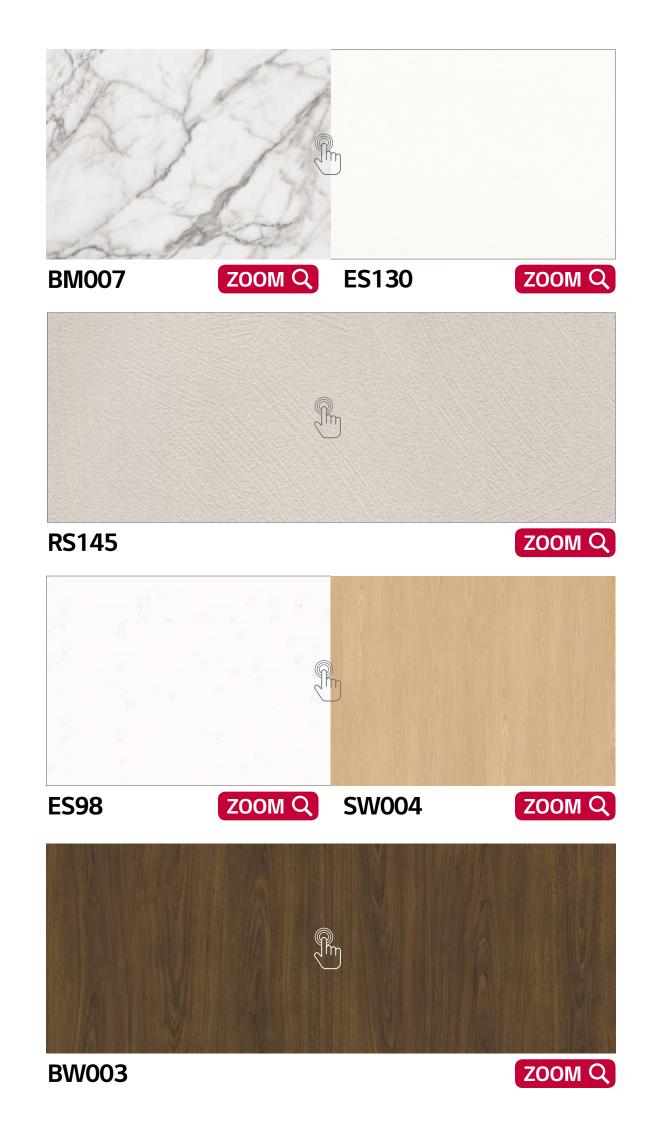
Residential Building



ZOOM Q





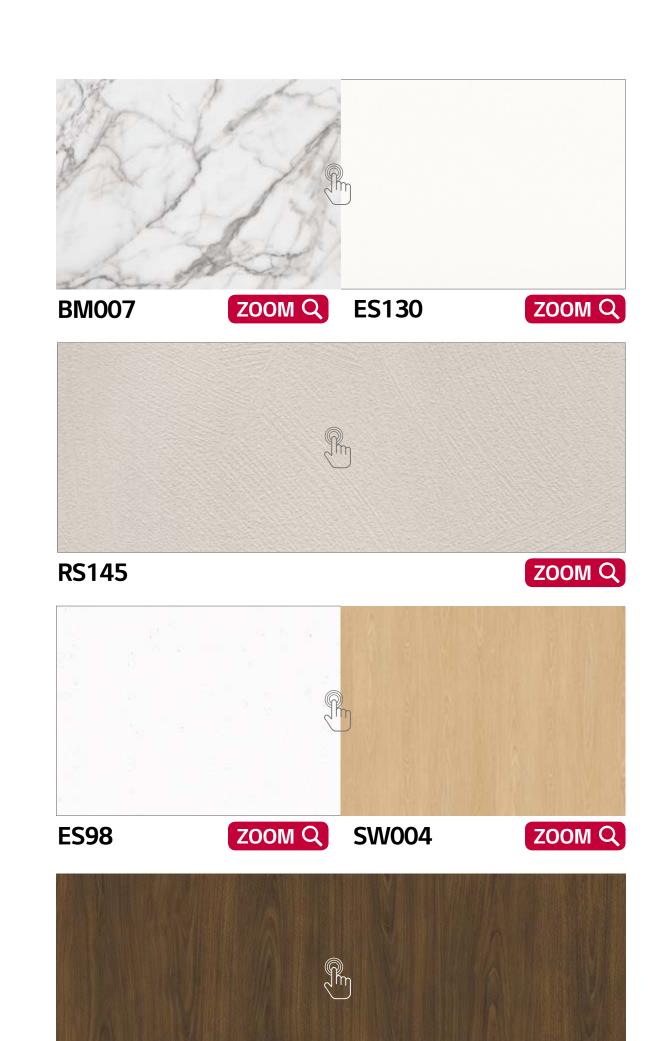






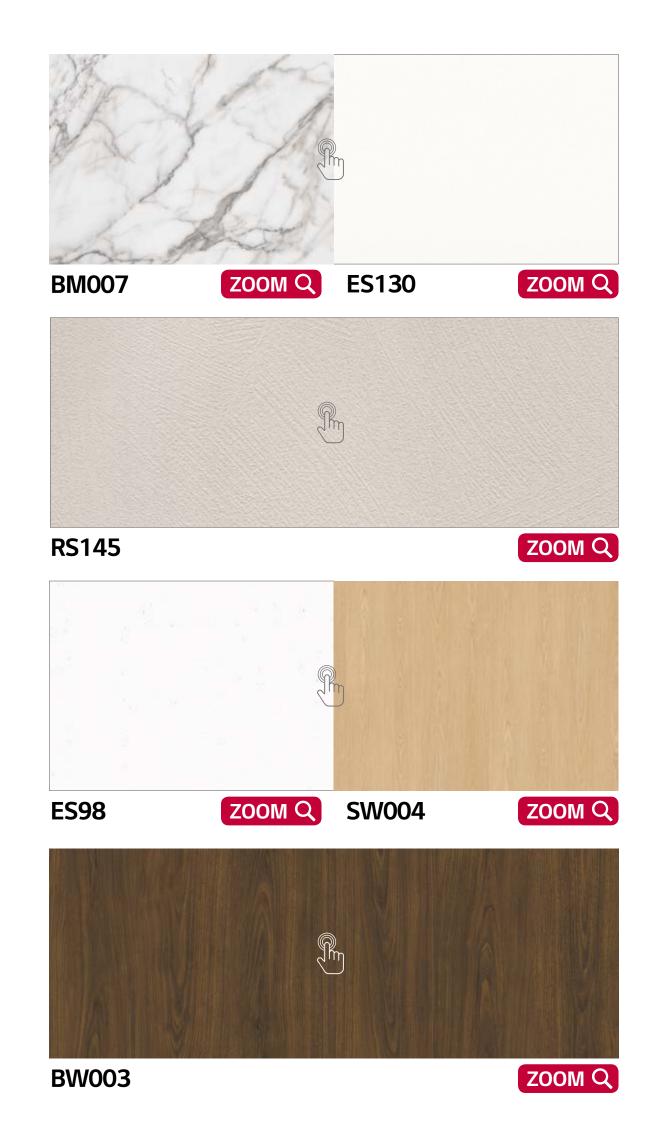
BW003

Residential Building



ZOOM Q

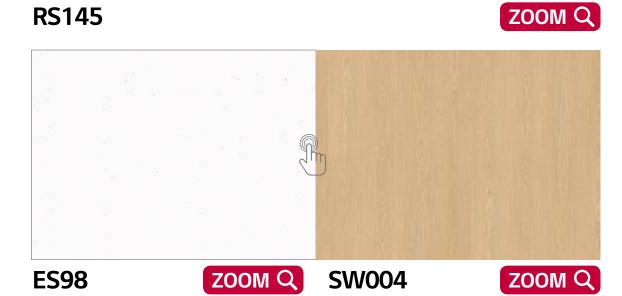


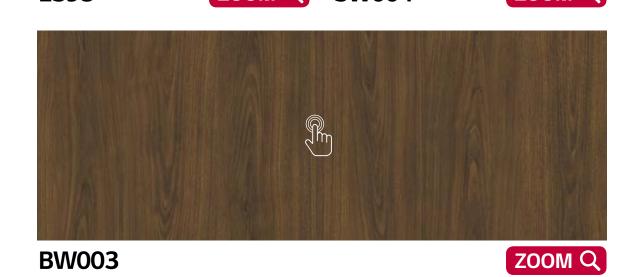




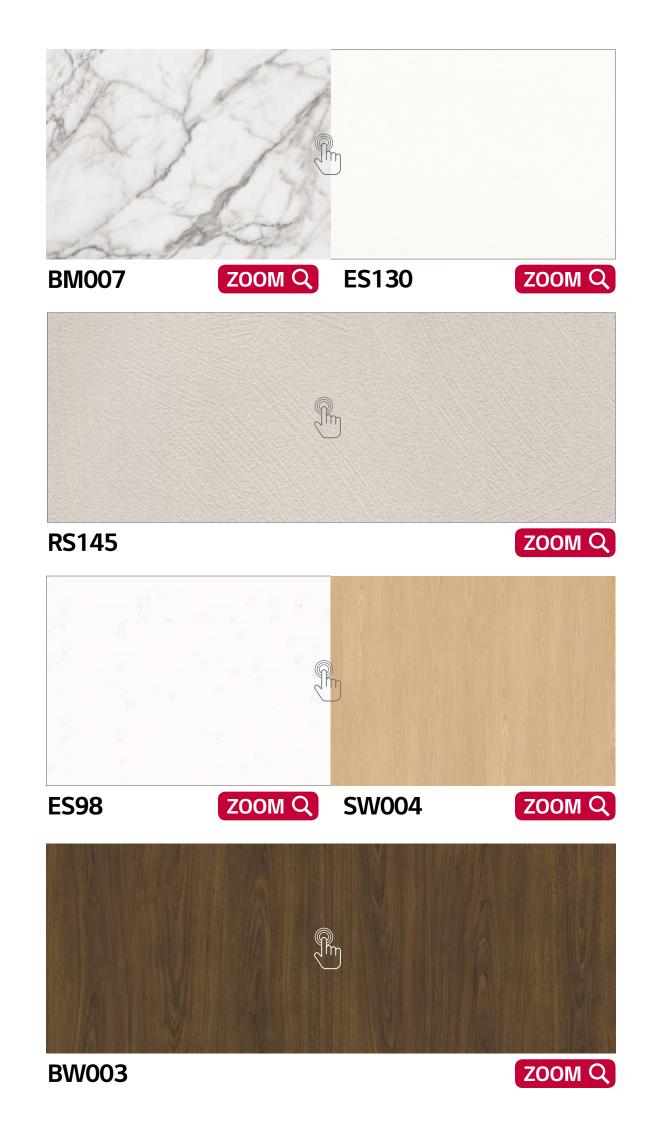






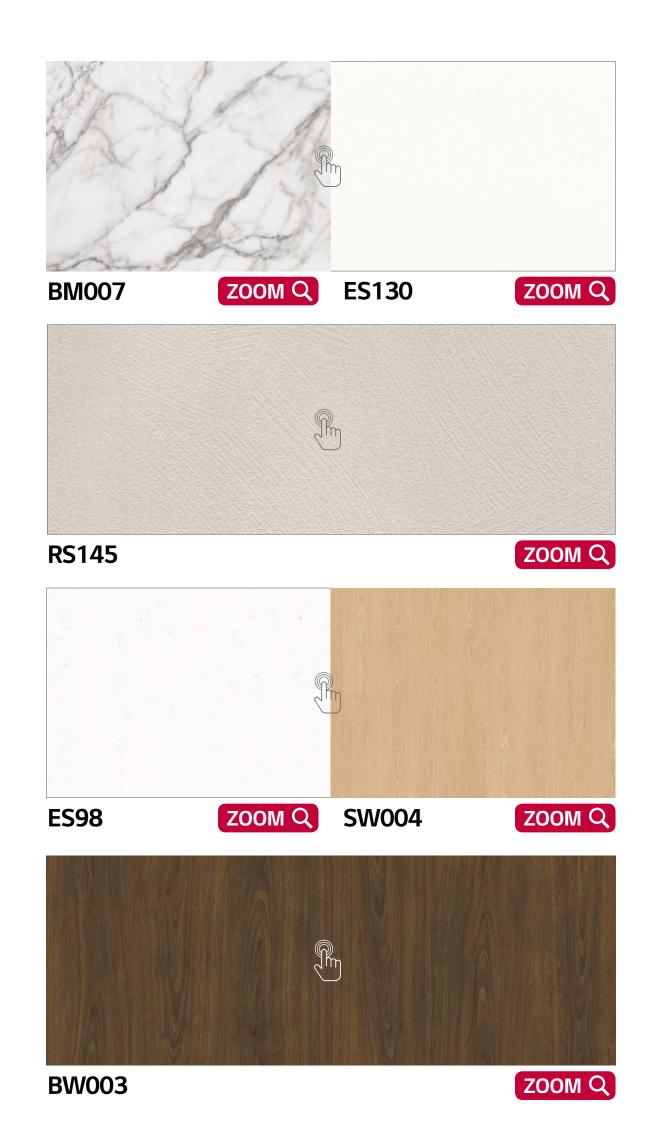




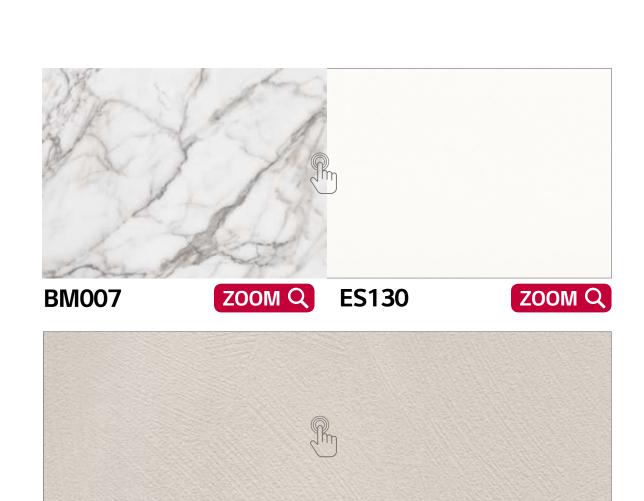




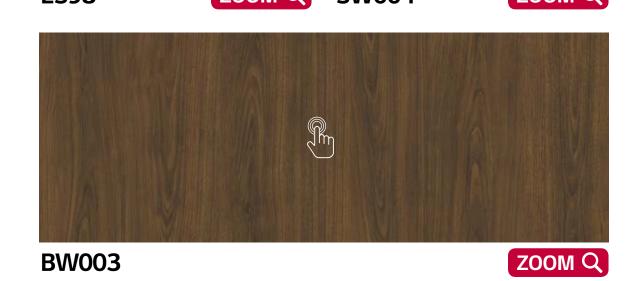






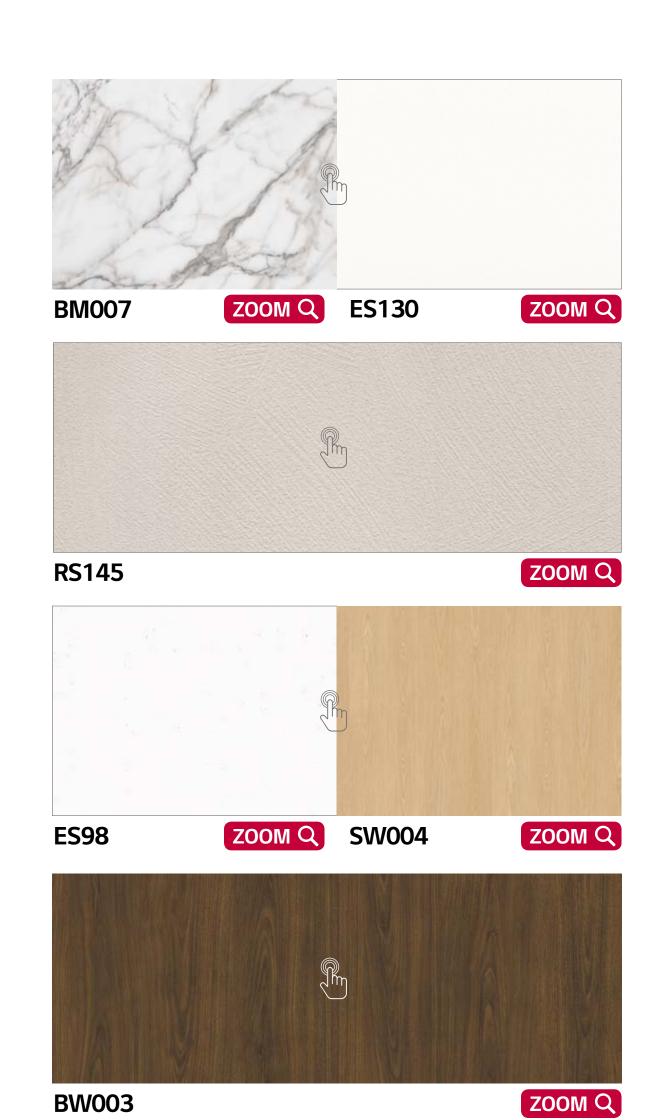


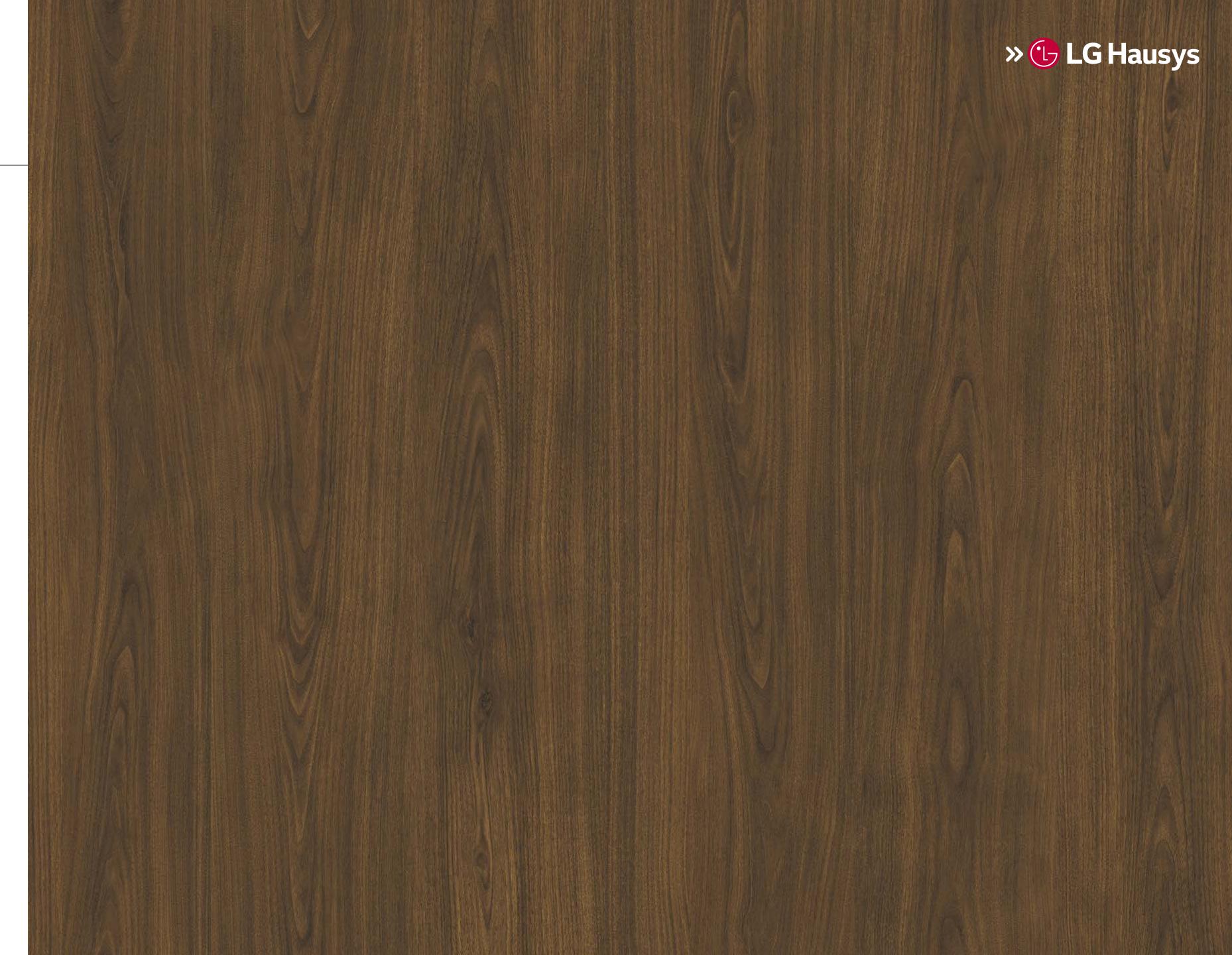






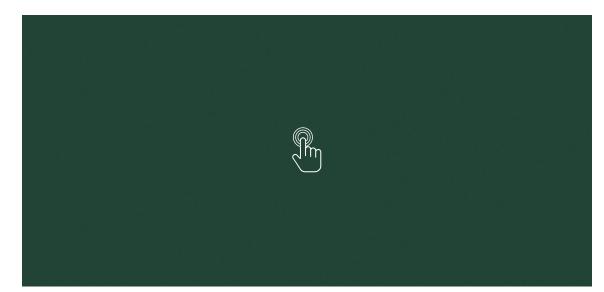








Z:IN Square in Seoul



RS127 ZOOM Q



BW005 ZOOM Q

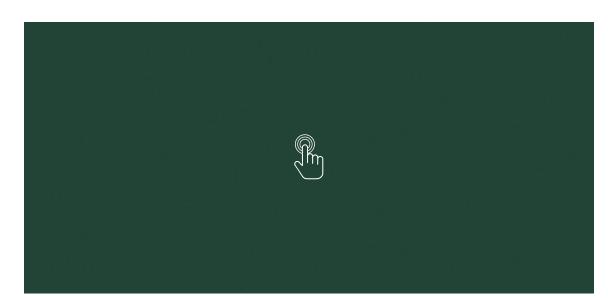


BW002 ZOOM Q





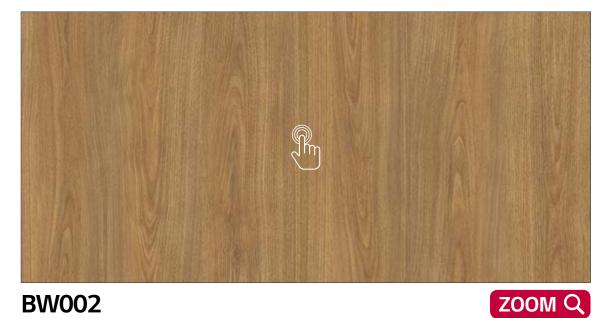
Z:IN Square in Seoul



RS127 ZOOM Q

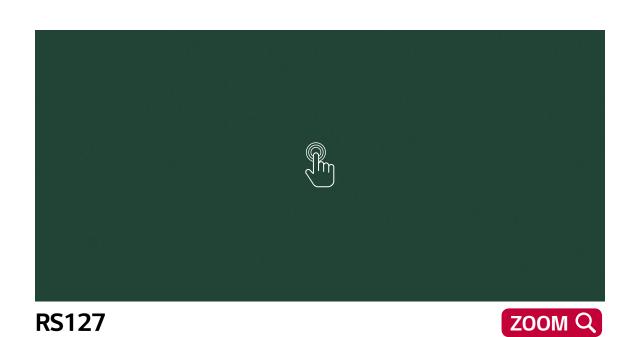


BW005 ZOOM Q



» C LG Hausys



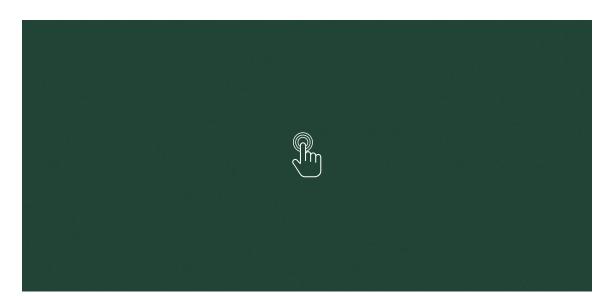








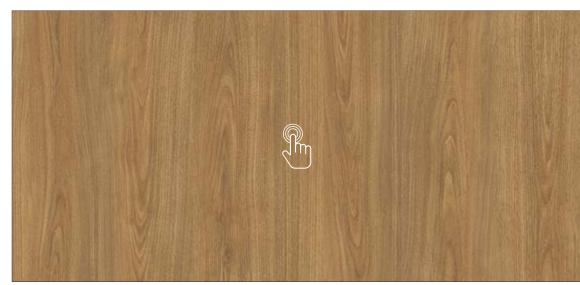




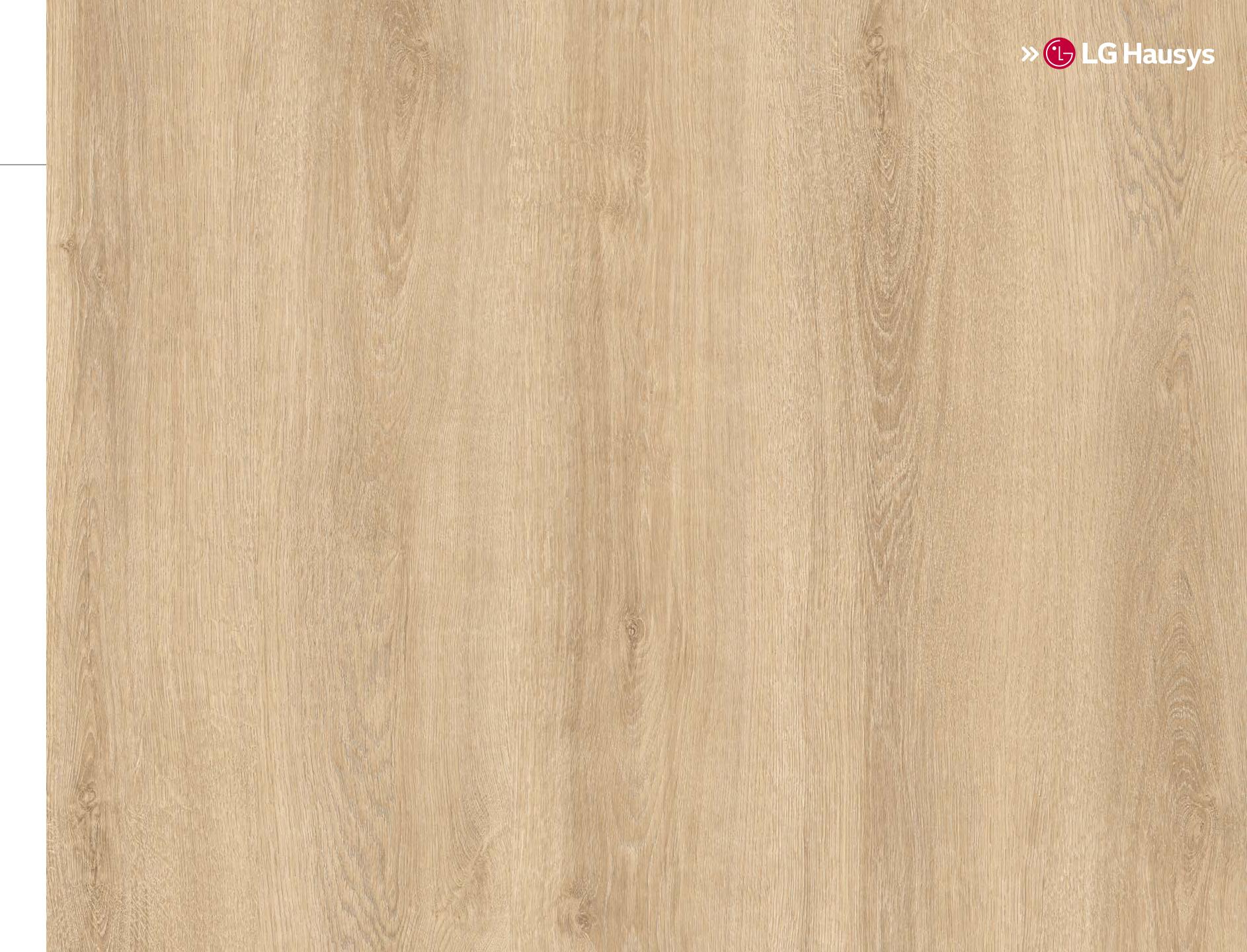




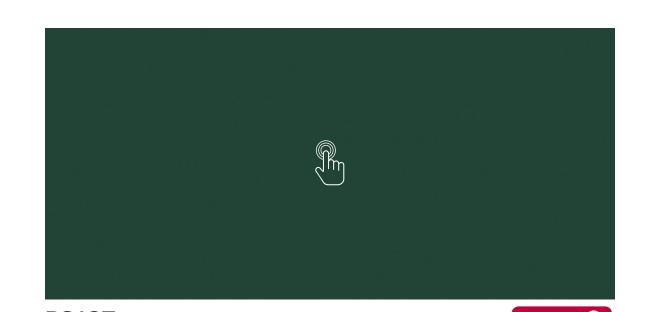
BW005 ZOOM Q











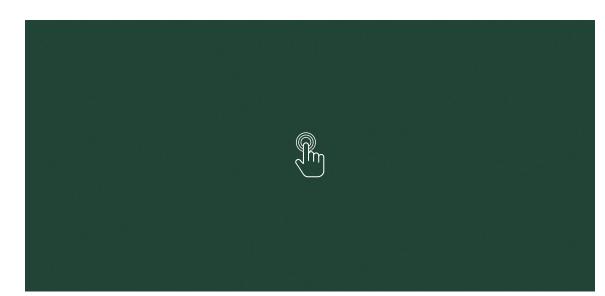








Z:IN Square in Seoul



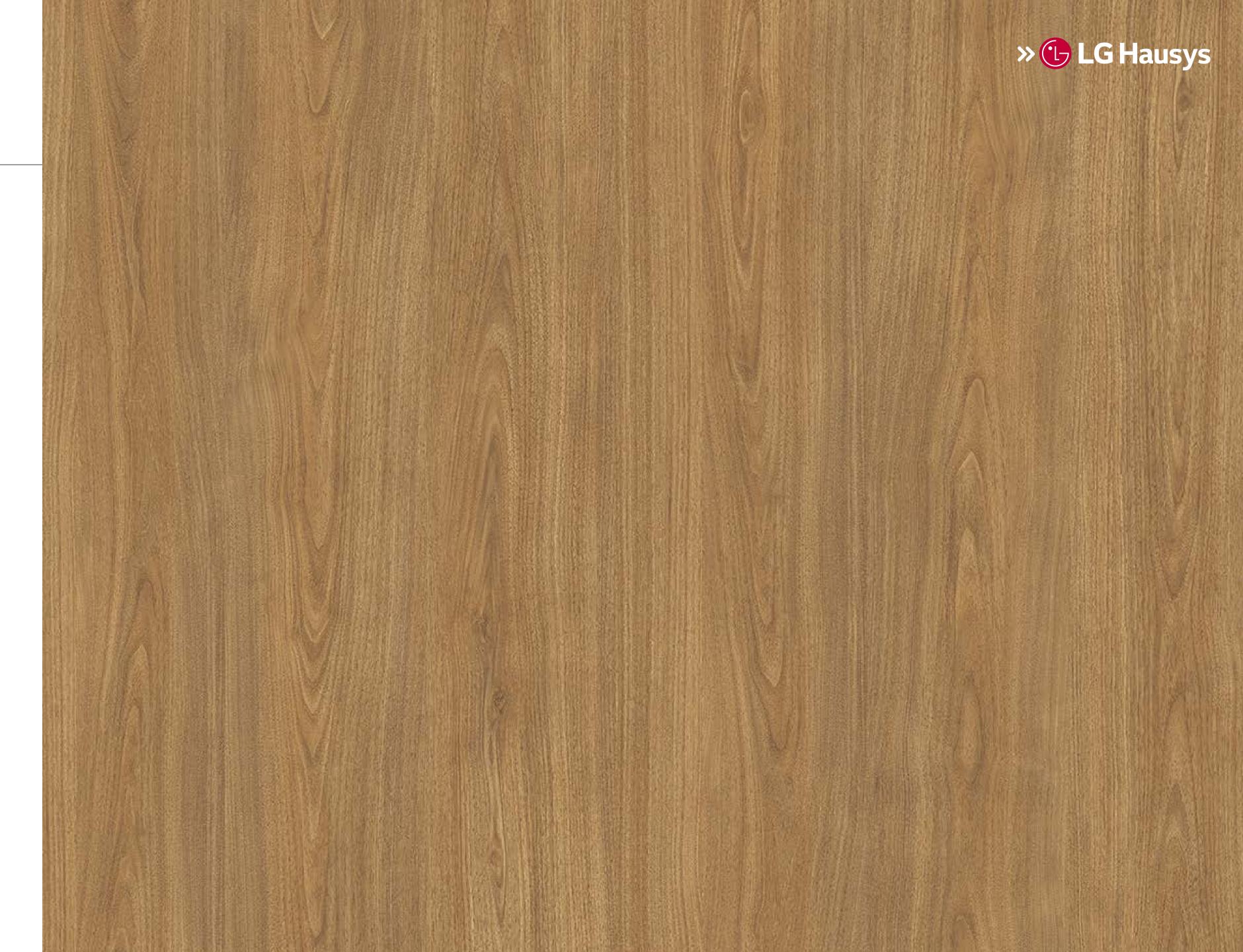
RS127 ZOOM Q



BW005 ZOOM Q



BW002 ZOOM Q





Z:IN Square in Seoul



BW006 ZOOM Q



BW002 ZOOM Q







Z:IN Square in Seoul



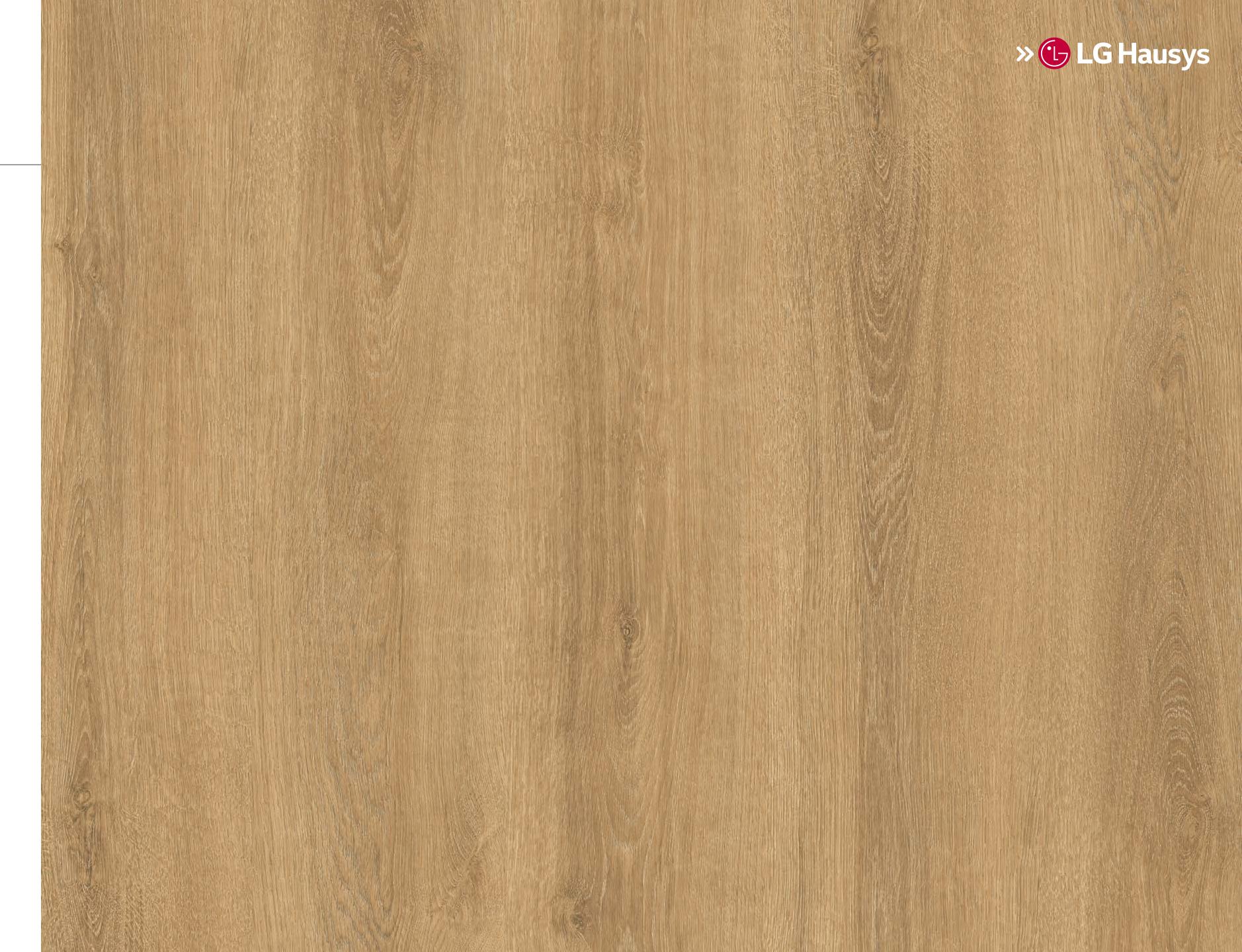
BW006 ZOOM Q



BW002 ZOOM Q



BW003 ZOOM Q





Z:IN Square in Seoul



BW006 ZOOM Q



BW002 ZOOM Q









Z:IN Square in Seoul



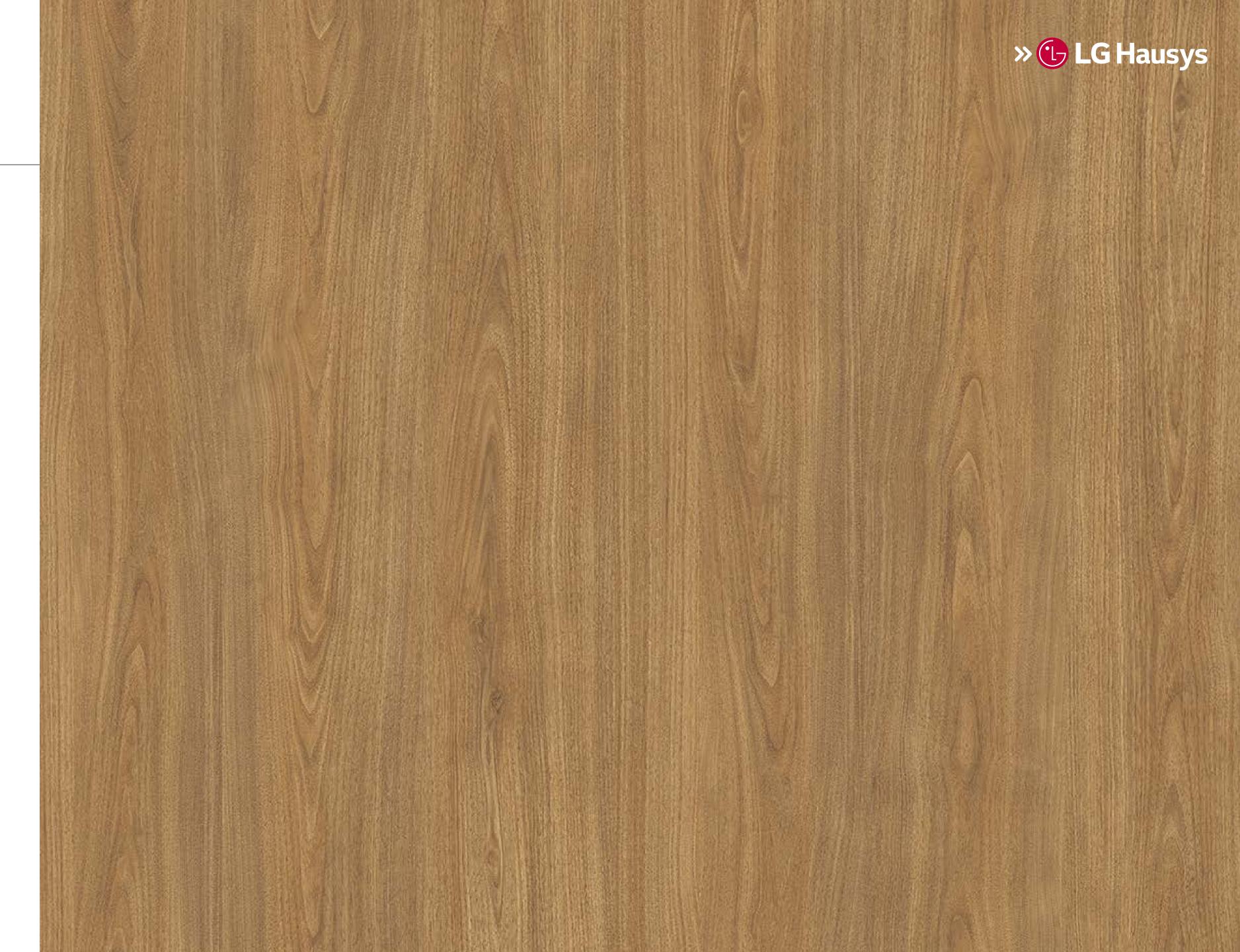
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BW003 ZOOM Q

















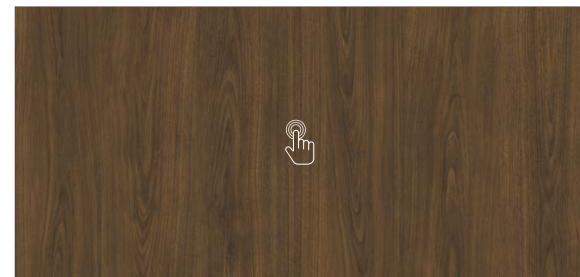
Z:IN Square in Seoul



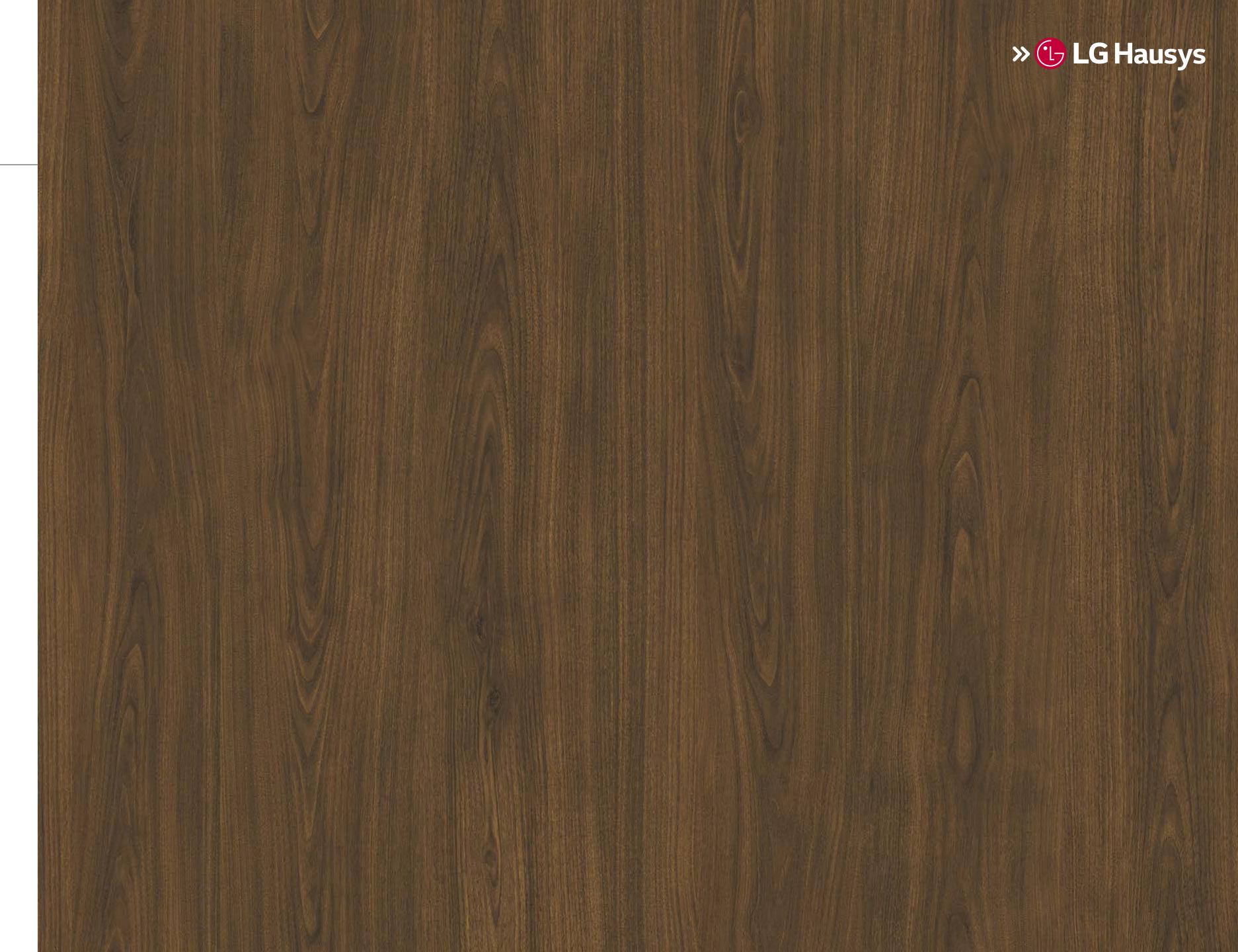
BW006 ZOOM Q



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Z:IN Square in Seoul



BM006 ZOOM Q



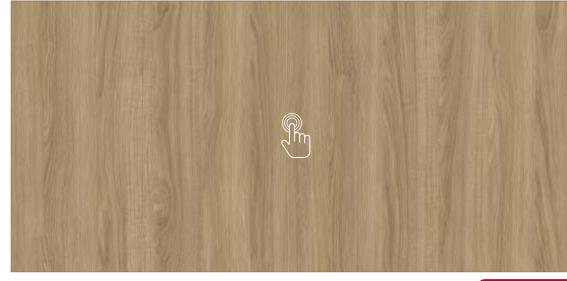




Z:IN Square in Seoul



ZOOM Q **BM006**









Z:IN Square in Seoul



BM006 ZOOM Q



NE109 ZOOM Q





Z:IN Square in Seoul



BM006 ZOOM Q



NE109 ZOOM Q



BENIFOnline Brochure

Headquarters LG Hausys.Ltd

98, Huam-ro, Jung-gu, Seoul, Republic of Korea 04637(LG Seoul Station Building) **E-Mail**: lginfo@lghausys.com

Sales Subsidiary

RUSSIA (Moscow)

LG Hausys Rus, LLC. Lesnaya Plaza 8th floor, 4, 4th Lesnoy pereulok,

Moscow, 125047, Russia **TEL**: 7-495-663-39-58

CHINA (Shanghai)

LG Hausys Trading Co., Ltd. 10F Magnolia Plaza No.777 Hongqiao Road, Xuhui District, Shanghai, China 200030

TEL: 86-21-5241-6600

INDIA (Gurgaon)

LG Hausys India Pvt. Ltd.7th Floor, Emmar MGF Digital Green,Tower B, Golf Course Ext. Road,Sector 61, Gurgaon – 122009, Haryana, India

TEL: 91-124-4694210

EUROPE (Frankfurt)

LG Hausys Europe GMBH Lyoner str 15, Atricom C8, D-60528 Frankfurt/m, Germany

TEL: 49-69-583029-0

CANADA (Toronto)

LG Hausys Canada, Inc. 423 Four Valley Dr. Concord, ON L4K 5Z3, Canada

TEL: 1-905-660-4746

Overseas Branch

TURKEY (Istanbul)

Kempinski Residences Astoria B**ü** y**ü** kdere Cad. No:127 A Kule Kat:7 P.K. 34394 Esentepe **Şiş**li / Istanbul, Turkey **TEL**: 90-212-285-1101

INDONESIA (Jakarta)

LG Hausys, Ltd. Jakarta Office Tower One at The City Center (TCC) Batavia 18th Floor, Unit 2B KH. Mas. Mansyur Kav. 126 Kel. Karet Tengsin, Kec. Tanah Abang Jakarta Pusat-10220

TEL: 62-21-2967-5043

U.A.E (Dubai)

DIC Bldg. 3, Office No. 124, P.O.Box 500138 Al Sufouh 2 (Sheikh Z Road Exit 32), Dubai, UAE

TEL: 971-4-553-1452

JAPAN (Tokyo)

LG Hausys, Ltd. Tokyo Office Kyobashi Trust-Tower 14F, 2-1-3 Kyobashi, Chuo-ku, Tokyo, 104-0031, Japan

TEL: 81-3-5299-4533

VIETNAM (Ho Chi Minh)

LG Hausys, Ltd. L9-04, 9 Flr, Vincom Center Dong Khoi, 72 Le Thanh Ton Str, Ben Nghe Wrd, Dist 1, HCMC

TEL: 84-28-3915-8911

THAILAND (Bangkok)

Pantos Logistic (Thailand) Co.,Ltd (LG HAUSYS) 193/77 Lake Rajada Office Complex 19th Floor, Rachadapisek Road, Klongtoey, Klongtoey, Bangkok 10110

TEL: 66-95-798-2565





