

BODAQ FURNITURE FILMS

Bodaq

Hyundai L&C interior film collections
creative environmental solutions

HYUNDAI

L&C

2020 EDITION

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2020

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INTERIOR FILM

2020 EDITION

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 creative environmental solutions

Index

New Material RF | UMI

RF	NEW RF001 31	NEW RF002 31	NEW RF003 31	NEW RF004 31
	NEW RF005 31	NEW RF006 31		
UMI	NEW UMI01 33	NEW UMI02 33	NEW UMI03 33	NEW UMI04 33

Basic S | RM | PTW | LS | LM | CP | HS | DM

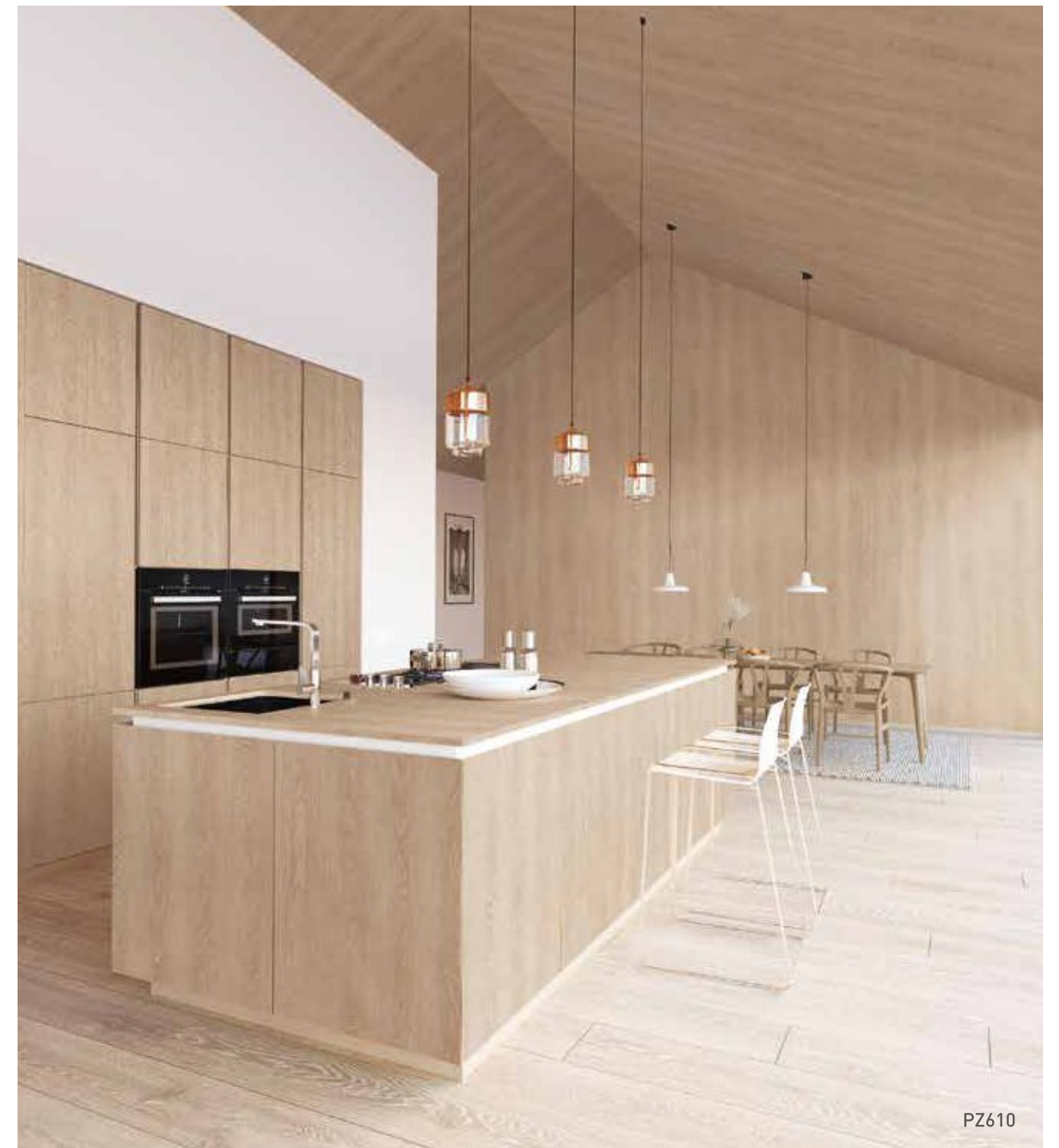
S	S	S	RM	LM
S115 39	S179 39	S212 38	RM008 41	LM202 47
S126 39	S181 39	S213 37	RM009 41	LM203 47
S127 37	S183 39	S214 37	RM022 41	LM204 47
S128 39	S185 38	S215 39	RM051 41	LM205 47
S140 39	S186 38	S216 37	RM052 41	LM206 47
S141 39	S188 38	NEW S217 37		
S143 39	S189 38	NEW S218 37		
S145 38	S194 37	NEW S219 38		
S146 37	S195 38	NEW S230 37		
S147 38	S196 38	NEW S231 37		
S149 39	S197 39	NEW S232 37		
S150 38	S198 37	NEW S233 38		
S153 39	S199 38	NEW S234 38		
S156 39	S200 38	NEW S235 37		
S157 39	S201 38	NEW S236 37		
S158 39	S202 38			
S159 39	S204 38			
S166 37	S205 38			
S169 38	S206 38			
S173 38	S207 38			
S175 38	S208 39			
S176 39	S209 39			
S177 39	S210 39			
S178 39	S211 39			
RM	PTW	CP	HS	DM
RM001 40	PTW01 42	CP101 47	HS204 47	DM017 47
RM002 40	PTW02 42	CP102 47	HS205 47	DM035 47
RM003 40	PTW03 42	CP201 47		DM036 47
RM004 40	PTW04 42	CP202 47		DM112 47
RM005 40	PTW06 42			DM801 47
RM006 41	PTW09 42			
RM007 40	NEW PTW11 45			
	NEW PTW12 45			
	NEW PTW13 45			
	NEW PTW14 45			
LS	RM	CP	HS	DM
LS102 47	RM001 40	CP101 47	HS204 47	DM017 47
LS103 47	RM002 40	CP102 47	HS205 47	DM035 47
LS104 47	RM003 40	CP201 47		DM036 47
LS106 47	RM004 40	CP202 47		DM112 47
LS108 47	RM005 40			DM801 47
	RM006 41			
	RM007 40			

Natural Surface TNS | NS | APZ

TNS	TNS	NS	NS
NEW TNS01 51	NEW TNS13 50	NS804 64	NEW NS891 58
NEW TNS02 51	NEW TNS14 50	NS805 64	NEW NS892 58
NEW TNS03 51		NS809 56	NEW NS893 54
NEW TNS04 51		NS810 56	NEW NS894 54
NEW TNS05 51		NS814 62	NEW NS895 64
NEW TNS06 51		NS815 63	
NEW TNS07 53		NS816 60	
NEW TNS08 53		NS817 60	
NEW TNS09 52		NS818 60	
NEW TNS10 52		NS819 56	
NEW TNS11 50		NS820 56	
NEW TNS12 50		NS821 56	
NS	NS	APZ	APZ
NS105 60	NS116 59	APZ05 61	APZ14 61
NS106 60	NEW NS117 59	APZ18 61	APZ25 61
NS116 59	NEW NS703 65	APZ26 61	
NS117 59	NS705 65		
NS703 65	NEW NS713 55		
NS705 65	NEW NS714 55		

Wood PZN | XP | PZ | DW

PZN	XP	PZ	DW
PZN02 68	XP118 68	NEW PZ610 70	DW715 73
	XP121 68	PZ901 72	NEW DW716 73
	XP124 68	NEW PZ611 70	
		PZ912 70	
		NEW PZ612 70	
		PZ806 72	



PZ610



HYUNDAI

L&C

Living & Culture



Designing a special moments

Contents

Introduction

- 04 | Company Introduction
- 06 | Healthy

Proposal

- 10 | Concept
- 12 | Hospitality
- 16 | Retail
- 20 | Wellness
- 24 | Work
- 26 | Education

Best Collection

- 30 | New Material
- 35 | Basic
- 48 | Natural Surface
- 66 | Wood

Technical Information

- 74 | Global Reference
- 76 | Technical Information
- 80 | Instructions for Construction
- 82 | Tools for Applying Interior Film
- 84 | Certification

Introduction

Company Overview

As a "Total Interior Company" providing new value to lives and spaces, we are making progress.

| Established 1968 Established a PVC factory in Jinhae
 2014 Separated the construction materials department in Hanwha L&C, founded a new corporation
 2018 Changed the company name to Hyundai L&C Co., Ltd.

| Headquarter Seoul

| CEO Jung Seuk Yoo

Hyundai L&C Brand story

Our core philosophy of space is the attitude that we must give sincere consideration to people and prioritize them as the owners of the space.

Instead of leaning onto the present stage, we continue to strive to create new and innovative spaces that supersede existing structures and knowledge.

This is the quality at the forefront of a new lifestyle culture that transcends simple necessity and provides happiness and abundance.

With a deep understanding of and attitude towards

people and space, Hyundai L&C creates a culture of life and space that is a world of its own.

For the happiness of our customers and for an abundant world; for the world in which everyone connects to each other beyond a simple space; Hyundai L&C is devoted to creating and expanding such a space.

A true living creator!
 A new cultural innovator!

Hyundai L&C Vision & Strategy

Our vision is to become the most reliable company for our customers.

To achieve this vision, we are passionately committed to implementing three strategies related to business development, company culture, and management infrastructure, which are based on our core values of autonomous creativity, sustainable growth, innovative work, customer focus, and the win-win pursuit of goals.



Healthy



Atopy-Safe Product

Our Eco-friendly Interior film Bodaq has obtained the "Atopy-safe" Mark, certified by the Korean Atopy Association. This mark is granted to products that are safe and able to prevent atopy, applicable for children and atopy patients.



ECO-Friendly

HANWHA L&C Receives the "2016 Healthy Housing Award"
Every product manufactured by Hanwha L&C has received the Healthy Housing Award. With our strict quality control, we intend to create products beneficial to both nature and human.



Environmental sign



Carbon emissions



Korea Fire Institute

Antibacterial
99%

6 Heavy metals
Phthalate
FREE

Hanwha L&C was awarded the "2016 Healthy Housing Award" sponsored by the Korea Environmental Information Research Center and awarded by Director of the Korea Environment & Technology for its contribution to the healthy housing supply such as reduction of harmful substances in the residential environment



PROPOSAL

| Hospitality | Retail | Wellness | Work |
| Education |



Hospitality

As wellness and sustainability continue to drive consumer priorities, hospitality brands are using biophilic design – the incorporation of nature and natural elements – to enhance guest experience. Following this principle, using forms and materials found in the natural environment to create tactile interiors.



Work

Exceeding boundaries of culture, style, and generation, creates an unconventional mixture that crosses boundaries of age, gender and region. An working environment away from stale and monotonous reality allows us flexible access to new values.



Retail

Retailers and store interiors are evolving to give customers a special experience. Mix together various natural and industrial materials in each space to create surprise and enjoyable experiences that cater to the characteristics of products and services.



Education

The interior of learning environment is designed to stimulate children's curiosity and creativity with a variety of trendy colors and positive emotions. It helps create a pleasant academic.



Wellness

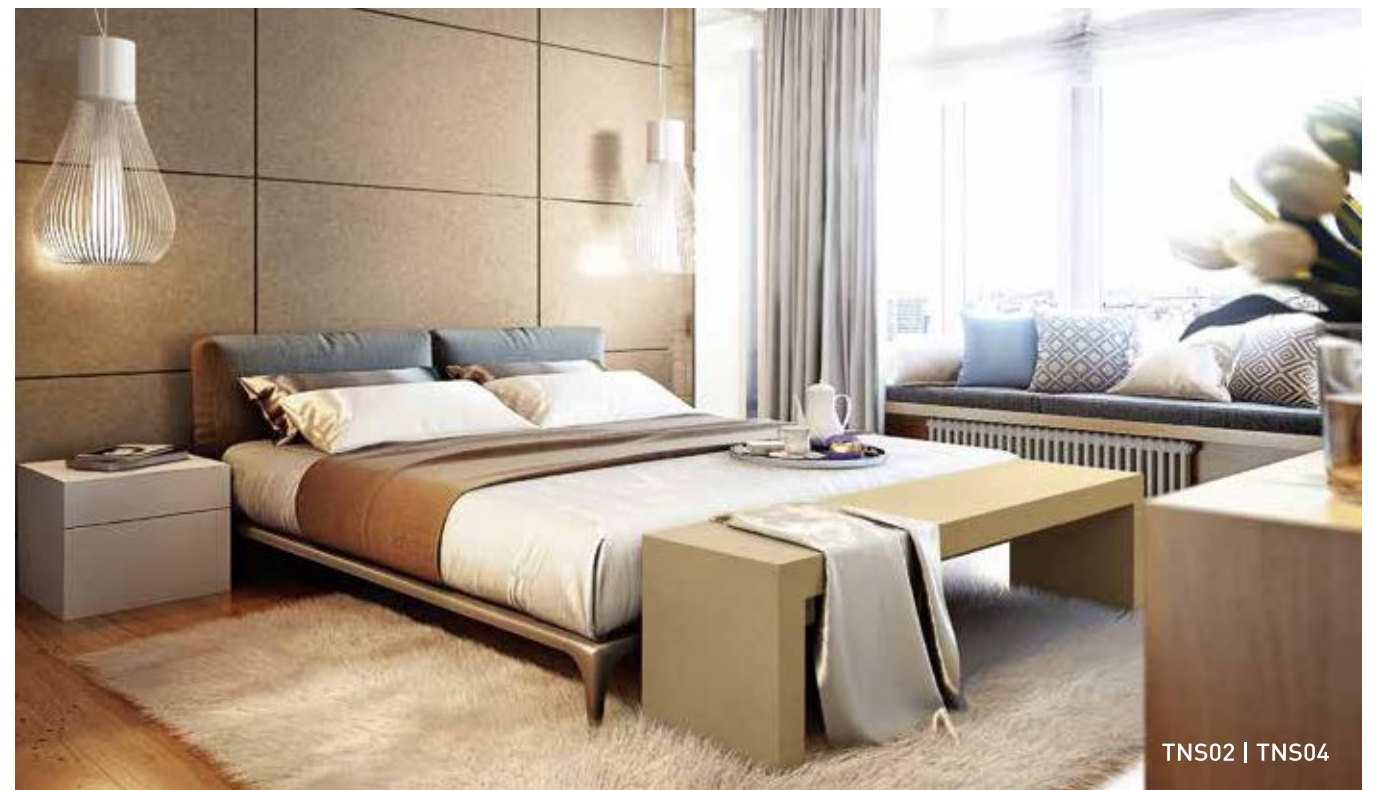
Escaping from excessive possessions and digital connections, we focus on the past and the inner self and meet our intellectual aspiration in our own space. Objects are carefully adjusted for essential form and function, creating ascetic poetry with a focus on important things.



Urban Natural

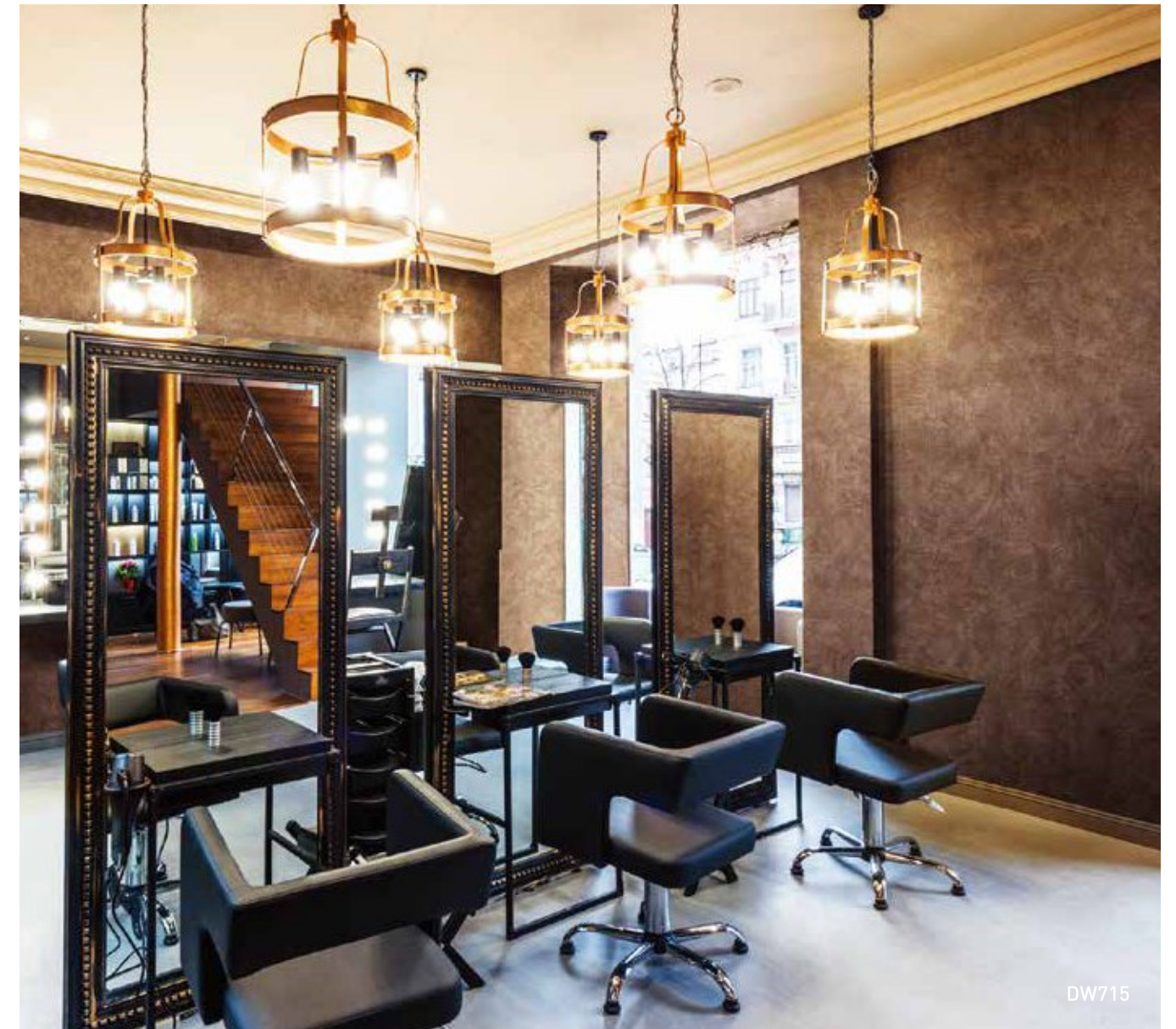
It offers a clean, natural place for relaxation by mixing warm wood with cool cement and cozy white fabric. Create a bright, smooth tone and manner for wood, leather and stones. The voluminous leather adds premium to space with its luxuriousness, comfort and unique natural texture.







PZ806



DW715

Industrial Mood

-
To create a luxurious retail shop use deep colors on a reflecting a gentle light surface. In addition to use metallic material in a beauty salons, spas, and cafes, it can be help classic and contemporary mood.

Retail



TNS11

Heritage Elegant

Dark-colored wood give a traditional elegance and create an atmosphere of grandeur. If a conservative and typical mood is desired, a selection of materials, such as heavy-duty wood or leather, can help a classic interior design.



NS105



Comfortable Balance

-

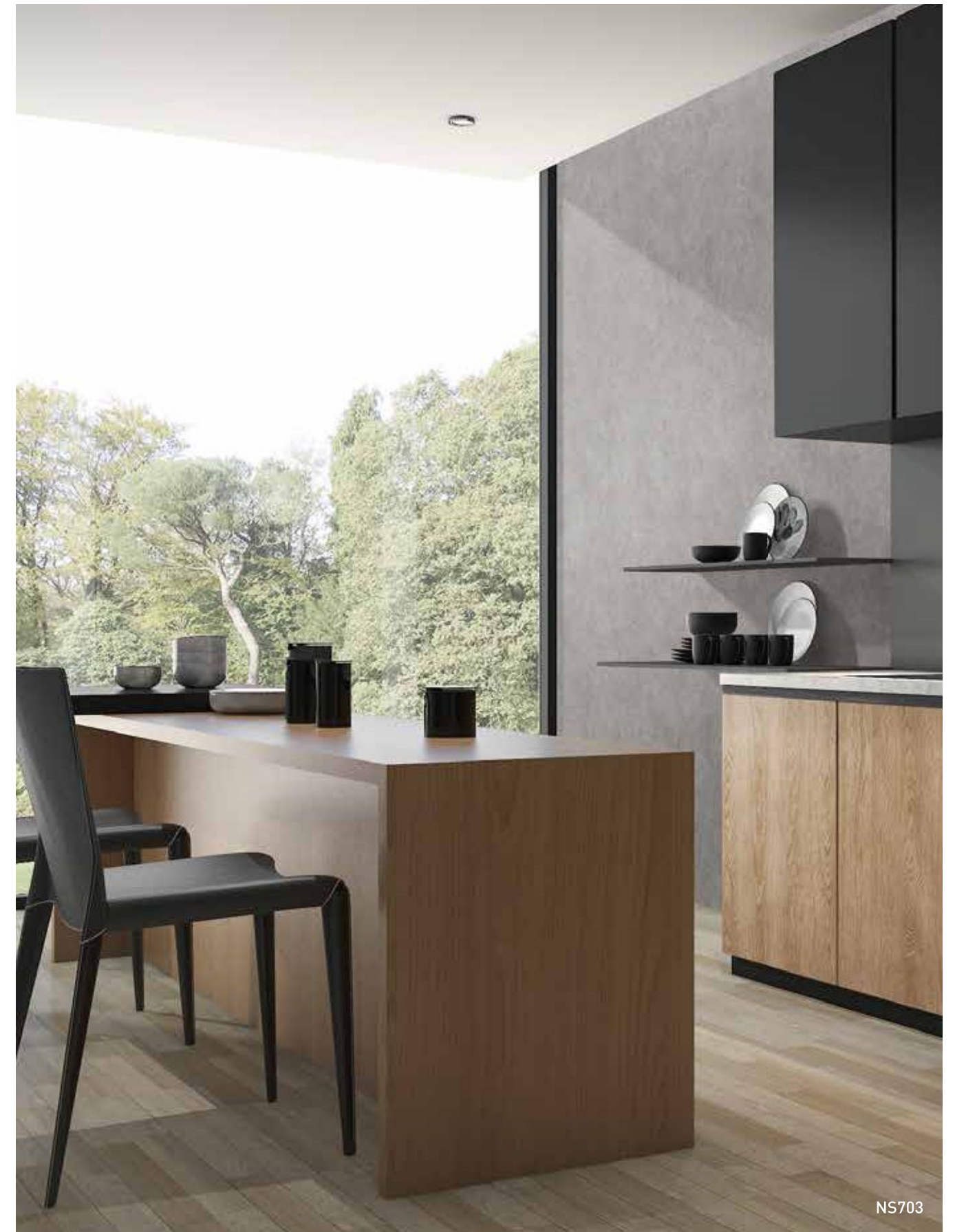
The most natural material, the serene balance of woods and lighting, creates a cozy and comfortable atmosphere. An unabated balance helps to create space for healing.





Calm & Clean

-
Hospital and wellness space will focus on clean white tone based on concept of minimalism that is not trendy. It balances aesthetic attractiveness and practical simplicity through natural material match such as wood and stone.





Modern Office

Grayencourage calm and rational mood, creating a modern offices space match with refined wood. The cement wall is suitable for creating a trendy industrial atmosphere and a refined wood warms the atmosphere of a rigid office.



Education

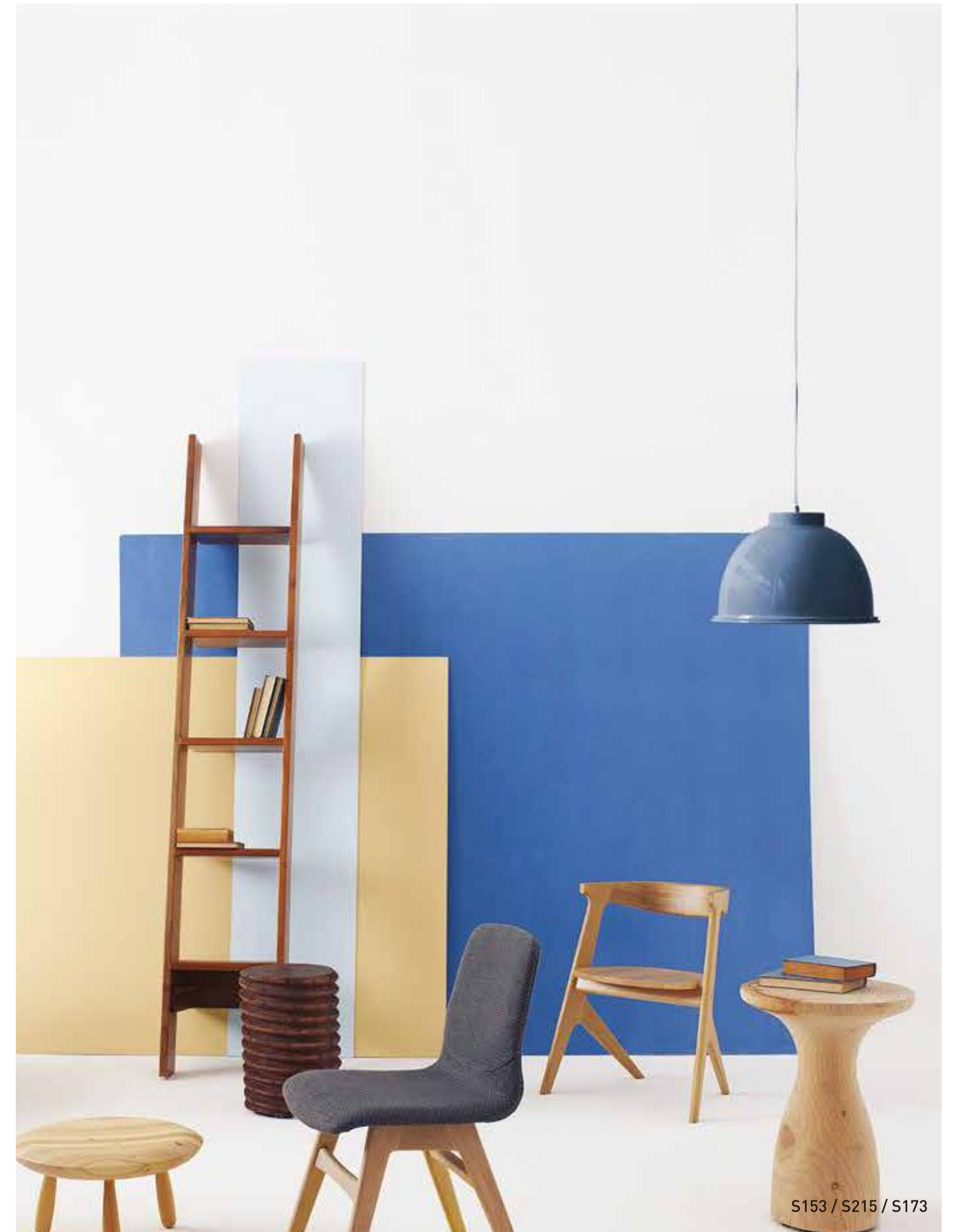


S194 / S177 / S185

Space by Generation

-

Each educational space can be used to decorate both a calm academic atmosphere and a unique play area with materials suitable for each age of use. For educational facilities that require children's space or creative activity, the use of a multicolor combination of light terrazzo patterns can give simple color blocking and other fun.



S153 / S215 / S173



Best Collection



| New Material | Basic | Natural Surface |

| Wood |

Real Fabric

New Material Basic Natural Surface Wood



RF001

새롭게 출시된 보닥 New Material 리얼 패브릭 시리즈를 소개합니다.
PVC 원사를 씨실과 날실 하나 하나 엮어 만드는 직조 방식으로 제작하여
패브릭 특유의 자연스러운 질감과 내구성까지 갖춘 제품입니다.

HYUNDAI L&C Interior film **Bodaq**



Real Fabric

◆ NEW RF001



Real Fabric

◆ NEW RF002



Real Fabric

◆ NEW RF003



Real Fabric

◆ NEW RF004



Real Fabric

◆ NEW RF005



Real Fabric

◆ NEW RF006



UMI01 | UMI02

빛으로 완성되는 모더니즘의 절정. 메탈의 아름다움을 가장 풍부하게 표현한 UMI 메탈의 글래머러스한 매력을 느껴보세요.
 기존 메탈 필름 제품에서는 볼 수 없었던 혁신적인 UMI (UV Micro Imprinting) 공법을 적용하여 고휘도의 메탈 표면을 사실적으로 구현했습니다.
 원도우 프레임이나 도어는 물론 냉장고를 비롯한 가전이나 주방 상하부장 등 폭넓은 적용 범위로 일체감이 뛰어난 공간 연출이 가능합니다.



Shiny Rookie

◆ NEW UMI01



Shiny Rookie

◆ NEW UMI02



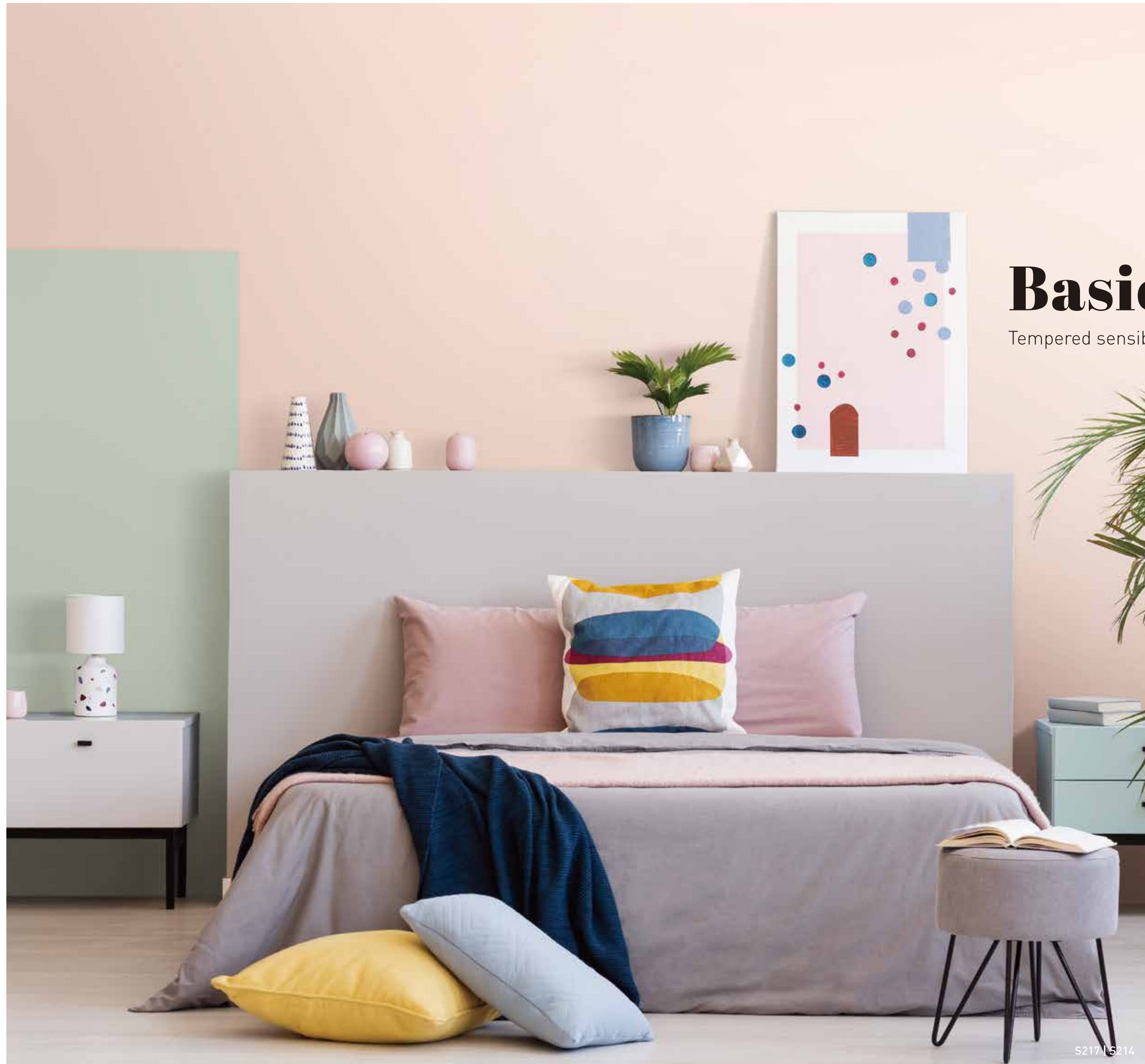
Vibration

◆ NEW UMI04



Vibration

◆ NEW UMI03



Basic

Tempered sensibility and intense personality

컬러와 텍스처로 완성되는 개성 만점 스펙트럼

화려한 장식을 더하지 않아도
시선을 끄는 공간. 무심한 듯 보이지만
디테일 하나까지 소홀함이 없는 인테리어.
트렌디한 컬러와 패턴의 변화무쌍한
조합으로 완성되는 보닥 Basic으로
당신만의 감각을 표현해 보세요.

S
RM
PTW
LS
LM
CP
HS
DM

S217 | S.14

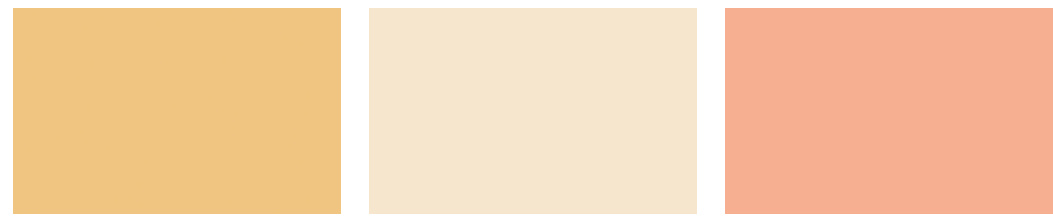


Basic

S218

봄 햇살처럼 화사한 파스텔 톤부터 최근 주목받고 있는 트렌디 컬러까지 보다 깊이 있고
다양해진 보닥의 컬러 팔레트로 감각적인 인테리어를 완성하세요.
세상에 하나뿐인 특별한 이야기를 담은 공간이 연출됩니다.

Basic



◆◆ S194 ◆◆ S127 ◆◆ S213



◆◆ S166 ◆◆ S146 ◆◆ **NEW** S217



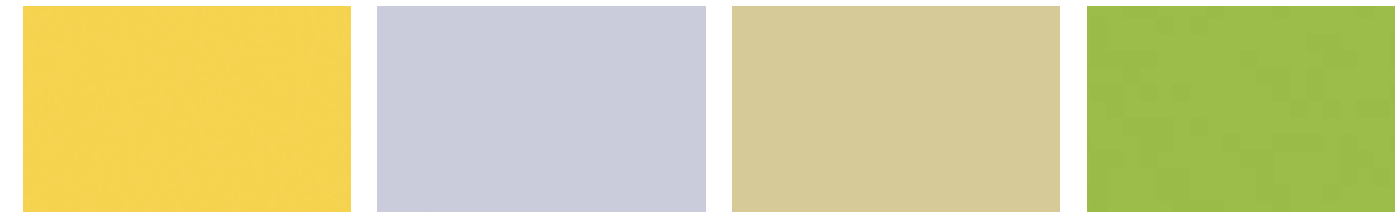
◆◆ S216 ◆◆ **NEW** S232 ◆◆ S214



◆◆ **NEW** S218 ◆◆ **NEW** S235 ◆◆ S198



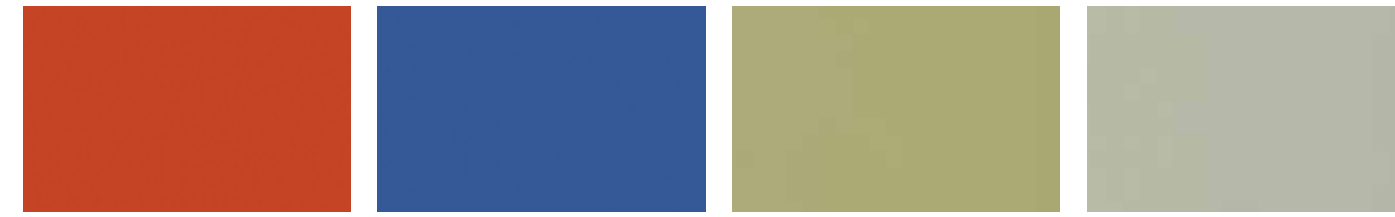
◆◆ **NEW** S236 ◆◆ **NEW** S230 ◆◆ **NEW** S231



◆◆ S188 ◆◆ S185 ◆◆ S196 ◆◆ S189



◆◆ S169 ◆◆ S186 ◆◆ **NEW** S219 ◆◆ S195



◆◆ S147 ◆◆ S173 ◆◆ S200 ◆◆ S212



◆◆ S207 ◆◆ S175 ◆◆ S201 ◆◆ S199



◆◆ S206 ◆◆ S150 ◆◆ S202 ◆◆ S145



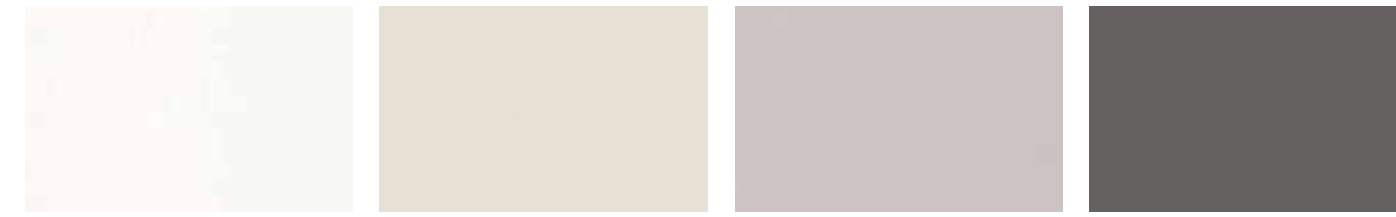
◆◆ S205 ◆◆ S204 ◆◆ **NEW** S233 ◆◆ **NEW** S234



◆◆ S115 ◆◆ S179 ◆◆ S153 ◆◆ S181



◆◆ S176 ◆◆ S141 ◆◆ S158 ◆◆ S159



◆◆ S208 ◆◆ S128 ◆◆ S209 ◆◆ S149



◆◆ S178 ◆◆ S156 ◆◆ S143 ◆◆ S197



◆◆ S126 ◆◆ S215 ◆◆ S210 ◆◆ S211



◆◆ S177 ◆◆ S157 ◆◆ S183 ◆◆ S140

Real Metal

HYUNDAI L&C Interior film **Bodaq**

보닥만의 기술과 노하우로 제작된 RM 시리즈는 메탈이 갖는 독특함과 빛나는 아름다움을 선사합니다. 엘리베이터나 창호, 가구 도어 등 주거에서 상업 공간에 이르기까지 세련된 분위기를 더해줍니다.

HYUNDAI L&C Interior film **Bodaq**



◆ ◆ RM005



◆ ◆ RM001



◆ ◆ RM022



◆ ◆ RM051



◆ ◆ RM004



◆ ◆ RM003



◆ ◆ RM052



◆ ◆ RM006



◆ ◆ RM007



◆ ◆ RM002



◆ ◆ RM009



◆ ◆ RM008

New Material **Basic** Natural Surface Wood



RM007 | RM009

Painted Wood

New Material **Basic** Natural Surface Wood



Painted Wood ◆ ◆ PTW01



Painted Wood ◆ ◆ PTW06



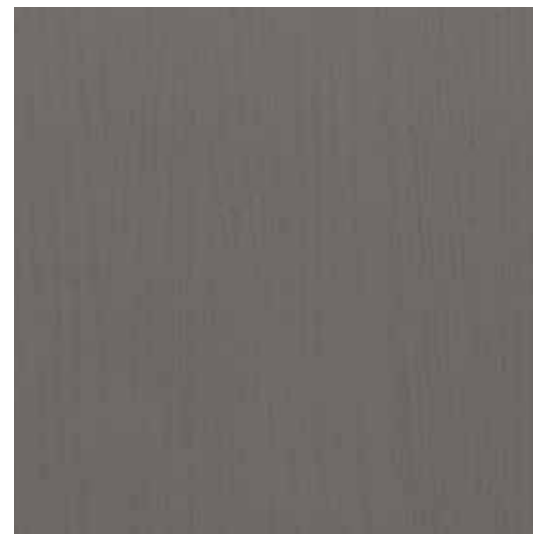
Painted Wood ◆ ◆ PTW02



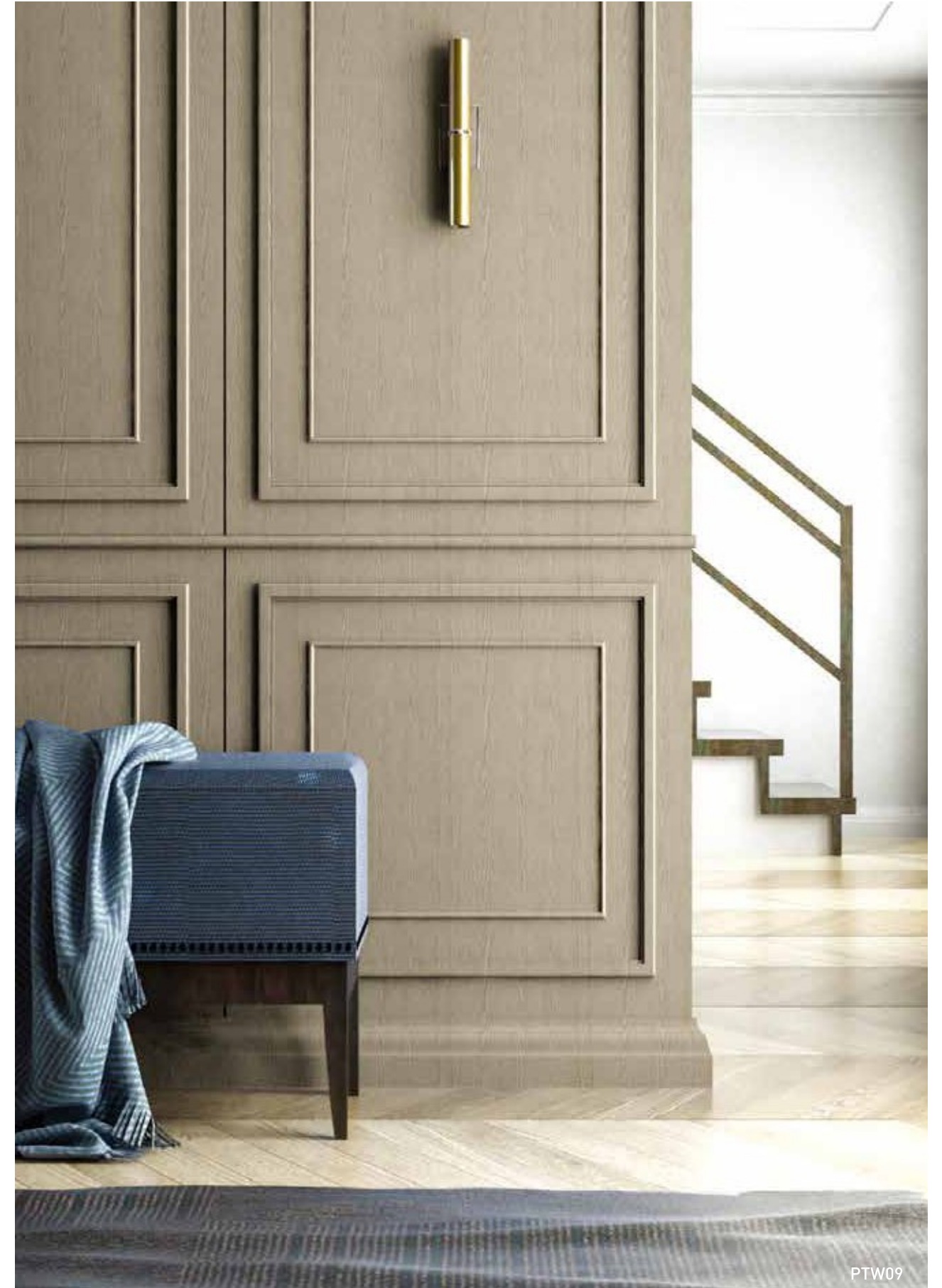
Painted Wood ◆ ◆ PTW09



Painted Wood ◆ ◆ PTW03



Painted Wood ◆ ◆ PTW04



PTW09

Painted Wood

New Material **Basic** Natural Surface Wood



PTW13

HYUNDAI L&C Interior film **Bodaq**



Painted Wood

◆ ◆ NEW PTW11



Painted Wood

◆ ◆ NEW PTW14



Painted Wood

◆ ◆ NEW PTW13



Painted Wood





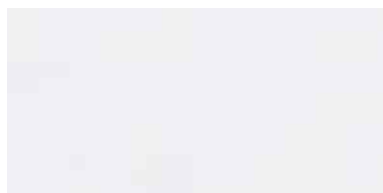

◆ ◆ NEW PTW12



DM801

무심코 지나쳤던 평범한 공간 하나도 놓치지 않도록, 다양한 질감과 컬러를 담았습니다.
텍스처 시리즈로 다채로운 공간을 표현해보세요.

HYUNDAI L&C Interior film **Bodaq**

		
◆ ◆ LS102	◆ ◆ LS106	◆ ◆ LS104
		
◆ ◆ LM202	◆ ◆ LM203	◆ ◆ LM204
		
◆ ◆ LM205	◆ ◆ LM206	◆ ◆ LS108
		
◆ ◆ LS103	◆ ◆ DM017	◆ ◆ DM035
		
◆ ◆ CP101	◆ ◆ CP102	◆ ◆ CP202
		
◆ ◆ CP201	◆ ◆ DM036	◆ ◆ HS205
		
◆ ◆ DM801	◆ ◆ DM112	◆ ◆ HS204



Natural Surface

Unique texture and luxurious mood of real material

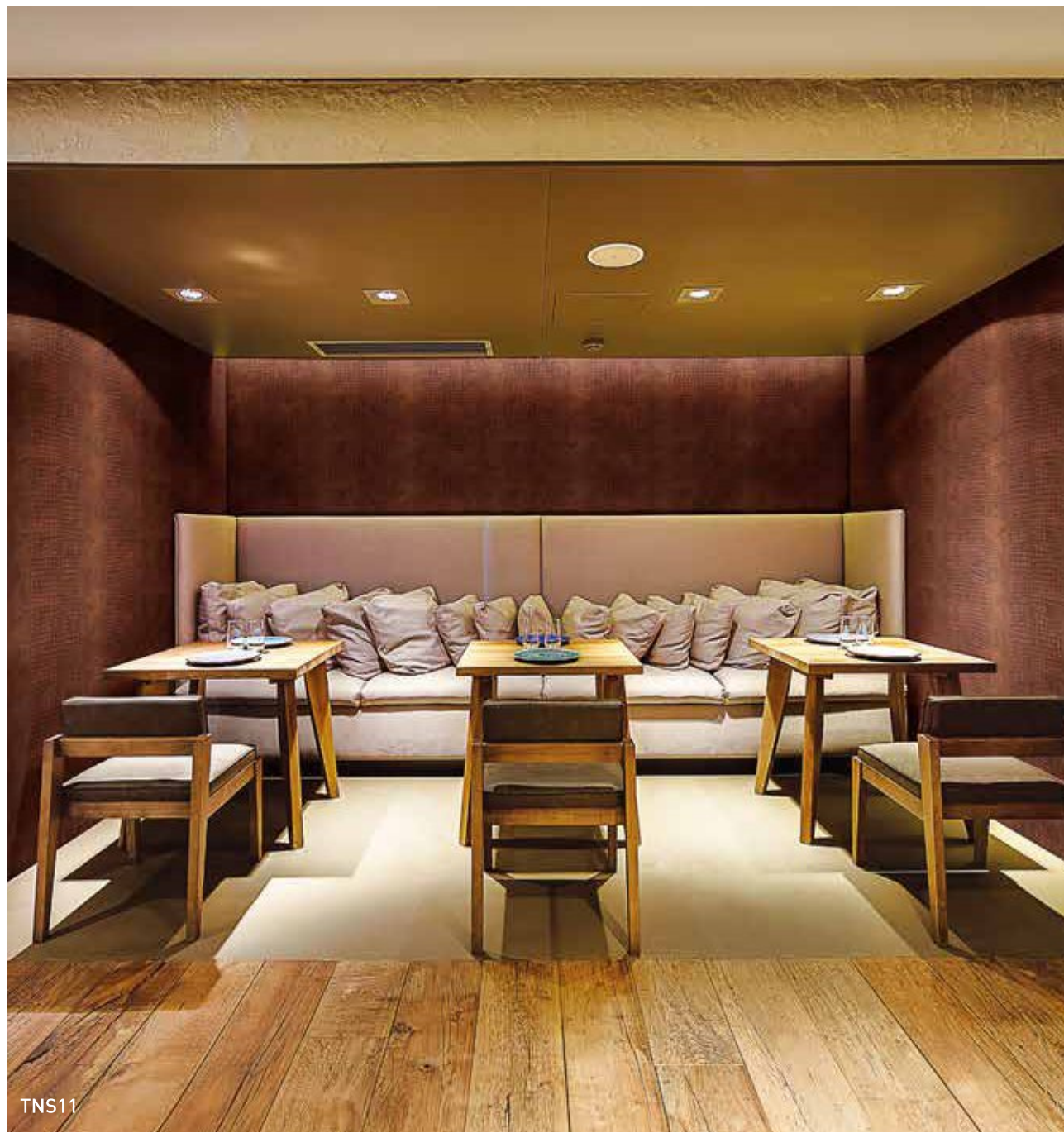
자연 소재의 매력을 독특한 질감으로
살려낸 드라마틱한 공간

보닥 NS 시리즈는 스톤, 패브릭, 메탈 등
자연에서 찾은 다양한 질감과 컬러를
현대적인 감각으로 재해석한
프리미엄 라인입니다.
때론 내추럴함으로, 때론 클래식한
품격을 더해 당신의 공간을
드라마틱하게 변화시켜드립니다.

Deep Emboss Leather

Natural Surface

New Material Basic Natural Surface Wood



TNS11



Deep Emboss Crocodile ◆ NEW TNS14



Deep Emboss Crocodile ◆ NEW TNS12



Deep Emboss Crocodile ◆ NEW TNS13



Deep Emboss Crocodile ◆ NEW TNS11

가죽 소재 본연의 고급스러움과 자연스러운 질감에 딥엠보스 기법을 적용하여 텍스처의 깊이감이 다릅니다. 입체감이 살아 있는 딥 엠보스 레더 시리즈로 평범한 공간에 프리미엄을 더하세요.

HYUNDAI L&C Interior film **Bodaq**



Deep Emboss Leather ◆ NEW TNS05



Deep Emboss Leather ◆ NEW TNS01



Deep Emboss Leather ◆ NEW TNS03



Deep Emboss Leather ◆ NEW TNS06



Deep Emboss Leather ◆ NEW TNS04



Deep Emboss Leather ◆ NEW TNS02

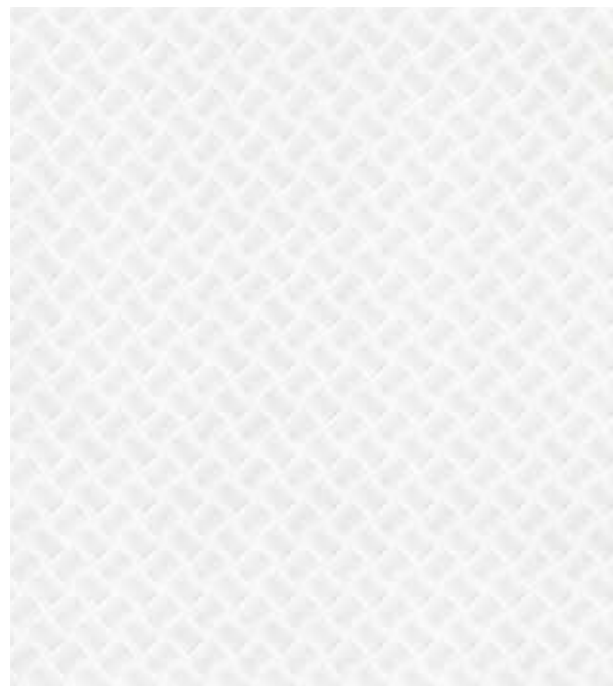


TNS02 | TNS04

Deep Emboss Leather

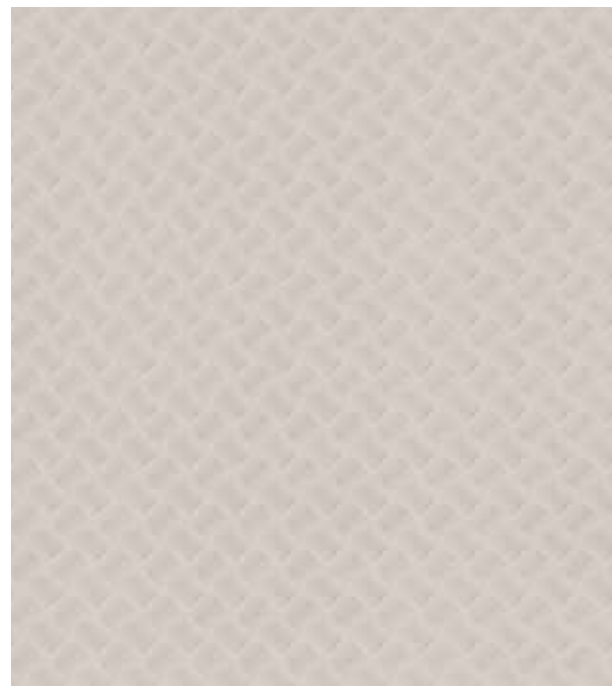


TNS10



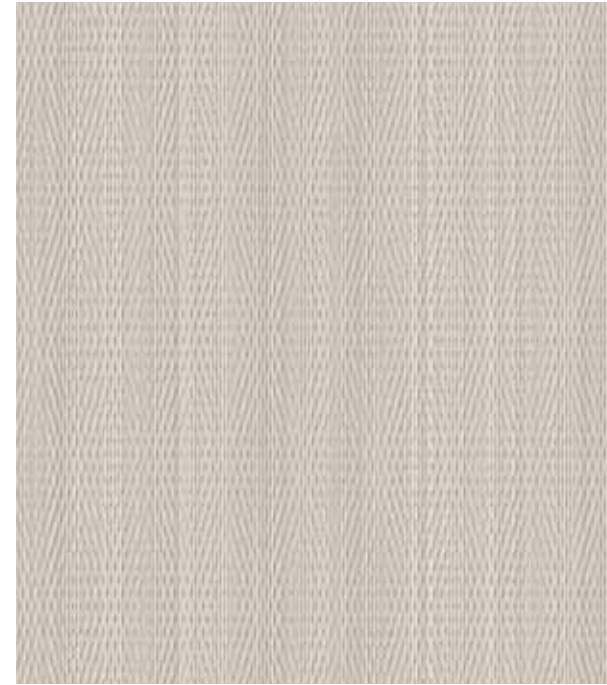
Deep Emboss Weaving

◆ NEW TNS10



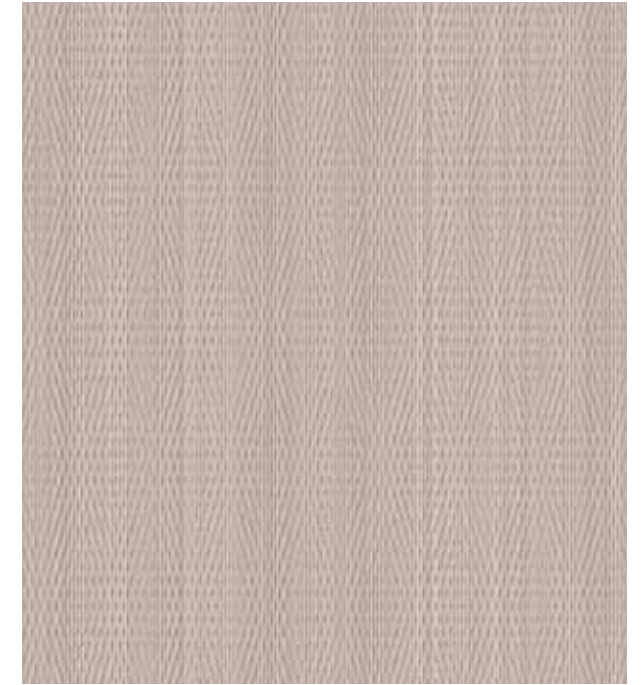
Deep Emboss Weaving

◆ NEW TNS09



Deep Emboss Fabric

◆ NEW TNS07



Deep Emboss Fabric

◆ NEW TNS08



TNS07

Fabric

New Material Basic Natural Surface Wood



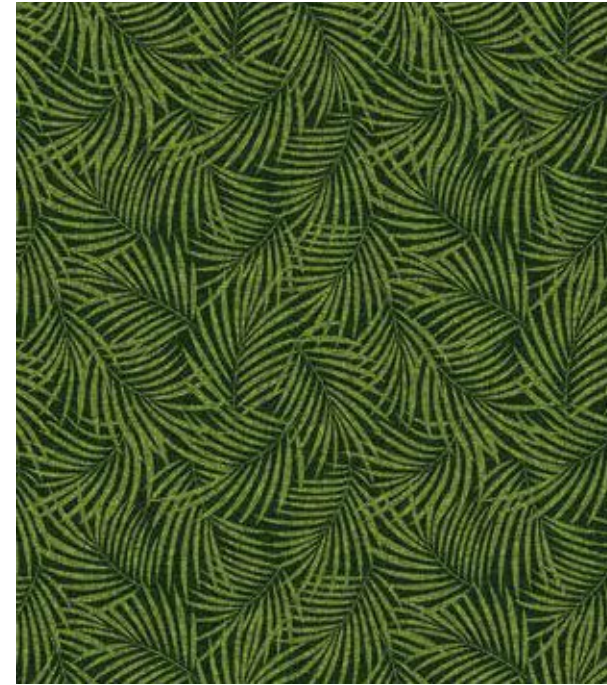
NS894



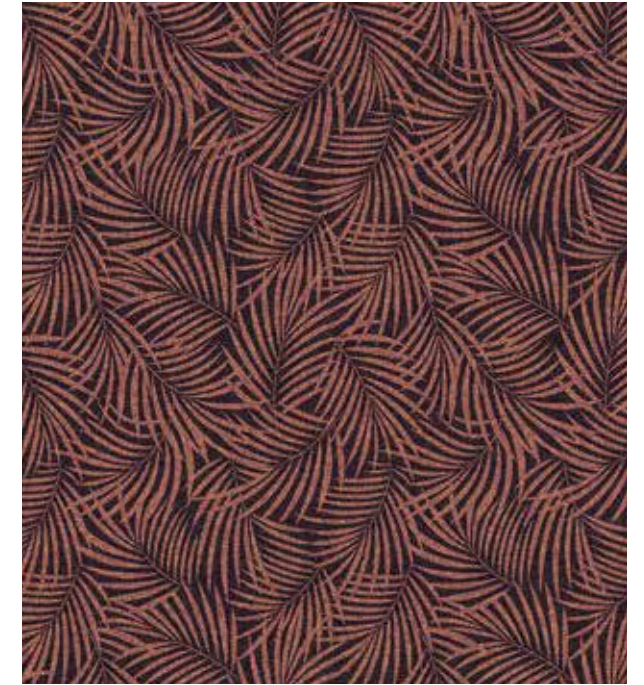
Fabric ◆ ◆ NEW NS893



Fabric ◆ ◆ NEW NS894



Botanic ◆ ◆ NEW NS713



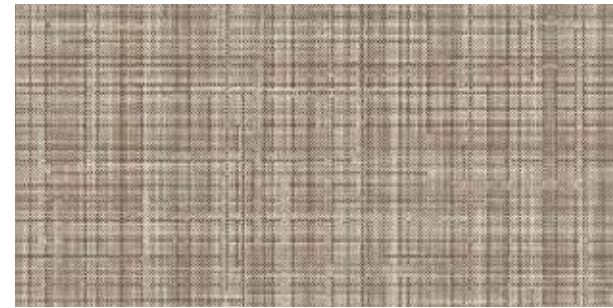
Botanic ◆ ◆ NEW NS714



NS713



NS820



Metallic Fabric ◆ ◆ NS821



Metallic Fabric ◆ ◆ NS819



Metallic Fabric ◆ ◆ NS820



Dual Wave ◆ ◆ NS809



Dual Wave ◆ ◆ NS810



NS810



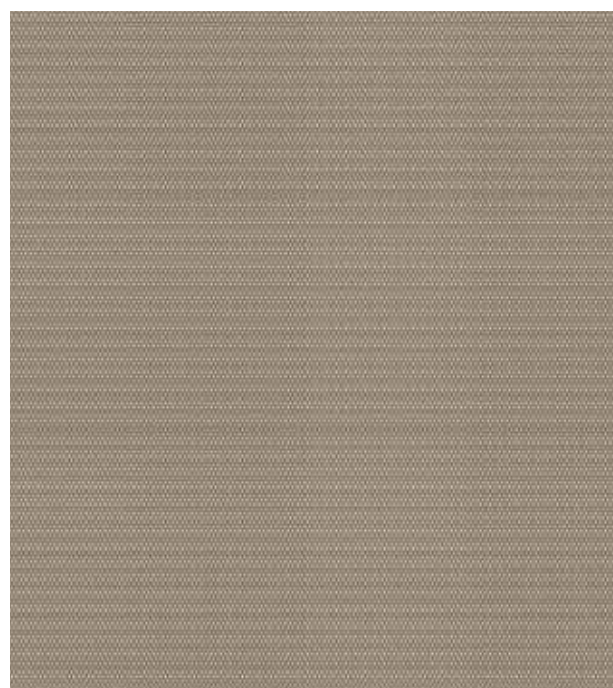
NS820

Metal

New Material Basic Natural Surface Wood

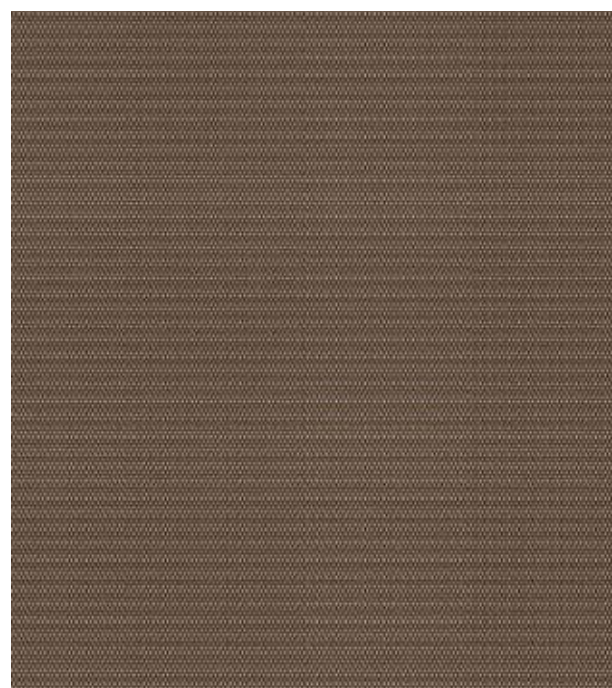


NS891



Metal Fabric

◆ ◆ NEW NS892



Metal Fabric

◆ ◆ NEW NS891

HYUNDAI L&C Interior film **Bodaq**



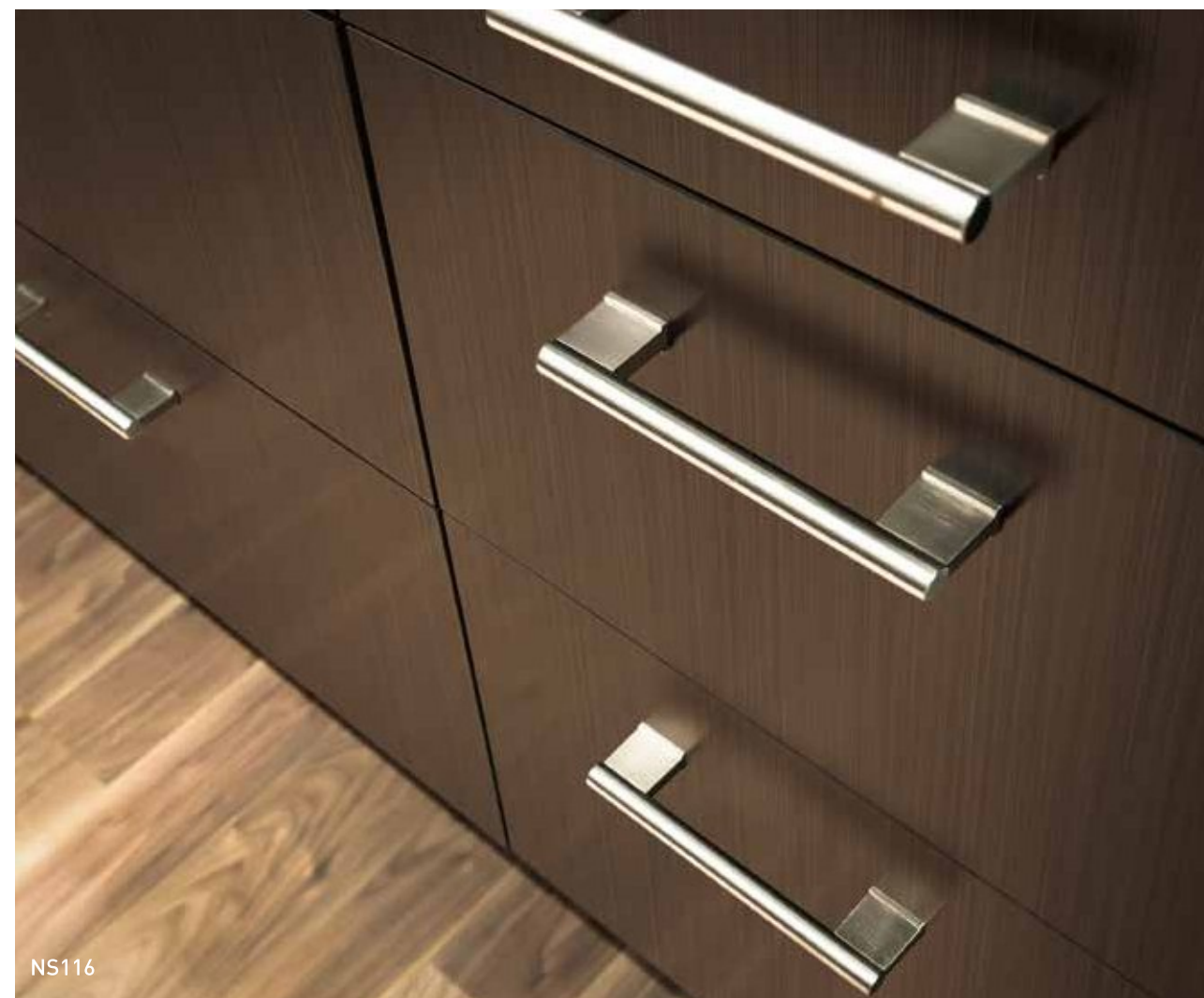
Metal Wood

◆ ◆ NEW NS117



Metal Wood

◆ ◆ NEW NS116



NS116



Metallic Dot ◆ ◆ NS105



Metallic Dot ◆ ◆ NS106



Brushed Metal ◆ ◆ NS816



Brushed Metal ◆ ◆ NS817



Brushed Metal ◆ ◆ NS818



NS816



APZ25



Golden Fabric ◆ ◆ APZ25



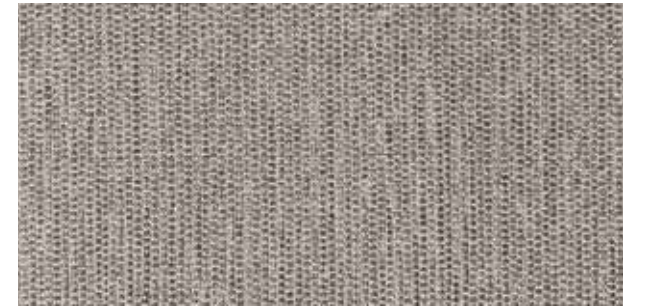
Golden Fabric ◆ ◆ APZ26



Gold Crack ◆ ◆ APZ05



Metal Weave ◆ ◆ APZ18



Metal Weave ◆ ◆ APZ14

New Material Basic Natural Surface Wood

Stone & Marble

New Material Basic Natural Surface Wood



NS814



Arabescato

◆ ◆ NS814

◆ Fire Retardant ◆ None Fire Retardant



Arabescato

◆ ◆ NS815

◆ Fire Retardant ◆ None Fire Retardant

Stone & Marble



NS804



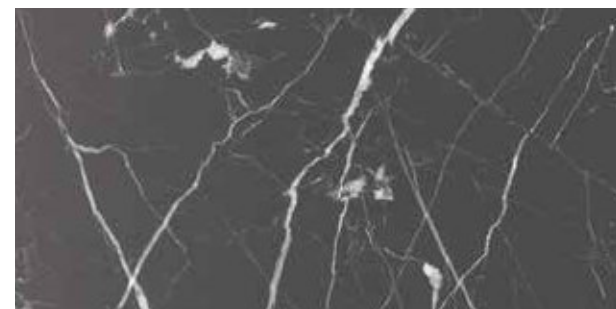
Bianco Marquina

◆ ◆ NEW NS895



Nero Marquina

◆ ◆ NS804



Nero Marquina

◆ ◆ NS805



Cement

◆ ◆ NEW NS703



Cement

◆ ◆ NEW NS705



NS703 | NS705



Wood

The value of wood texture that naturally fits anywhere

감성 충만한 우드가 펼쳐내는 버라이어티한 변화

꾸준히 사랑받아온 우드는 유행을 타지
않으면서도 어디에나 쉽게 어울립니다.
그만큼 기본적이면서도 변화의 폭이
가장 넓은 아이템이기도 하죠.
나뭇결, 색채, 질감 등 익숙하지만 늘 새롭게
재해석되는 우드의 세계로 초대합니다.
당신의 공간에 멋진 나무 한그루가
드리워집니다.

DW724

PZN
XP
PZ
DW

Premium Wood



XP124



Walnut

◆ ◆ XP124



Oak

◆ ◆ PZN02



Walnut

◆ ◆ XP118



Elm

◆ ◆ XP121



XP118

가장 사랑받는 수종만을 선별하여 가공된 리치 우드는 풍부한 패턴과 다양한 세이드의 변화, 여기에 딥엠보스 효과를 구현하는 특수 인쇄기법을 적용하여 더욱 리얼한 자연 질감을 연출합니다. 우드 본연의 깊고 중후한 분위기를 선호하신다면 모델하우스를 비롯하여 카페, 레스토랑 등 다양한 주거 및 상업공간에 적용해 보세요.



Oak

◆ ◆ **NEW** PZ610



Oak

◆ ◆ **NEW** PZ611



Oak

◆ ◆ **NEW** PZ612



Oak

◆ ◆ PZ912

◆ Fire Retardant ◆ None Fire Retardant



PZ610

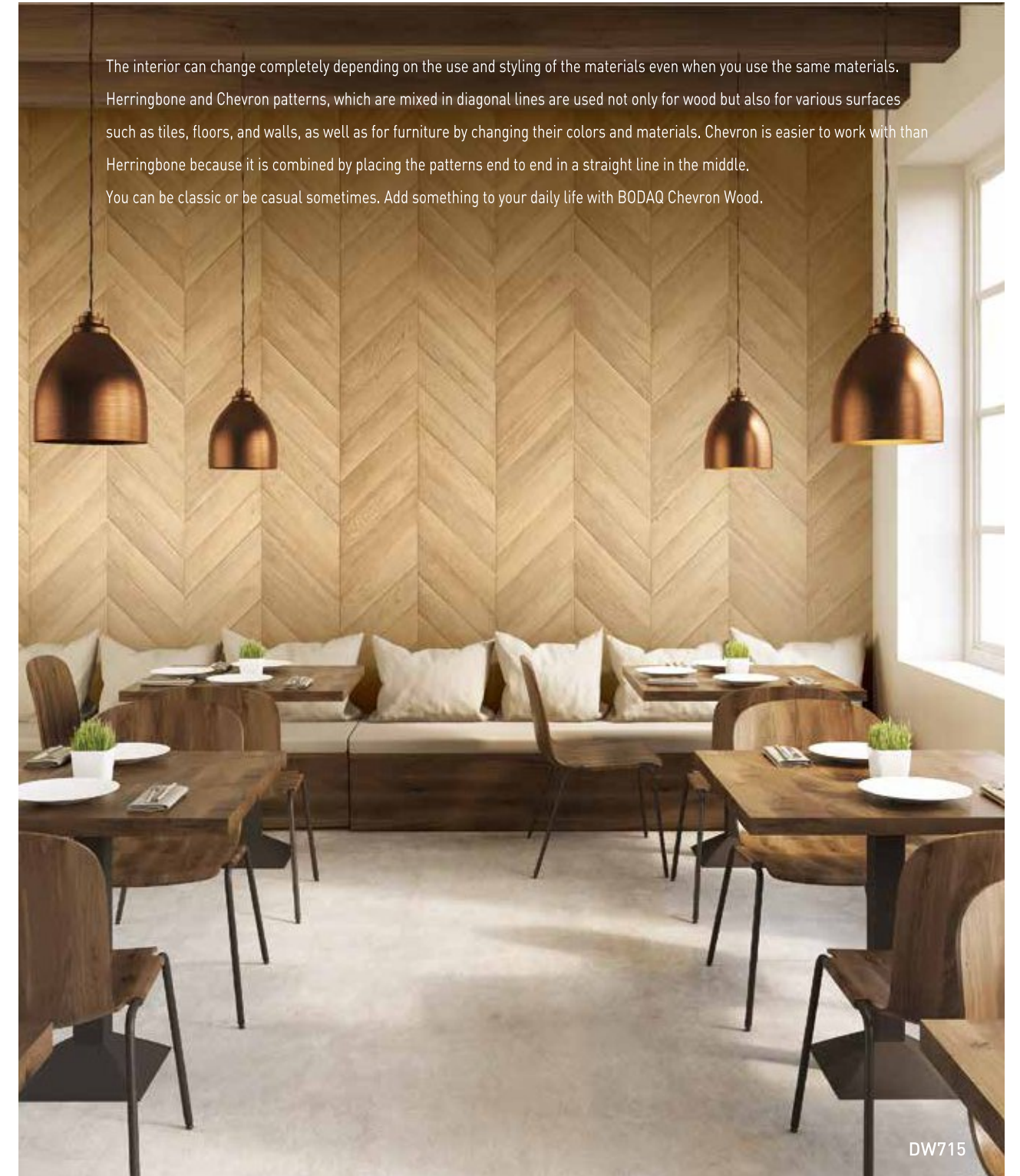
◆ Fire Retardant ◆ None Fire Retardant



Oak ◆ ◆ PZ806



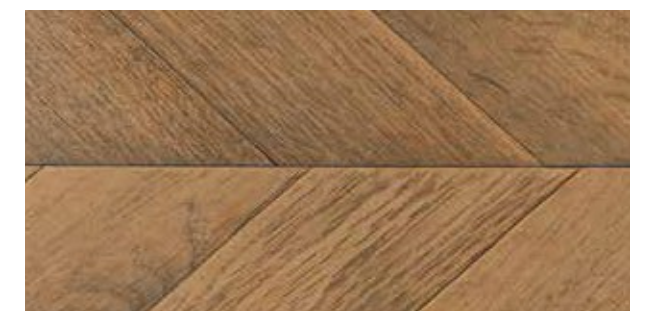
Oak ◆ ◆ PZ901



The interior can change completely depending on the use and styling of the materials even when you use the same materials. Herringbone and Chevron patterns, which are mixed in diagonal lines are used not only for wood but also for various surfaces such as tiles, floors, and walls, as well as for furniture by changing their colors and materials. Chevron is easier to work with than Herringbone because it is combined by placing the patterns end to end in a straight line in the middle. You can be classic or be casual sometimes. Add something to your daily life with BODAQ Chevron Wood.



Chevron wood ◆ ◆ DW715

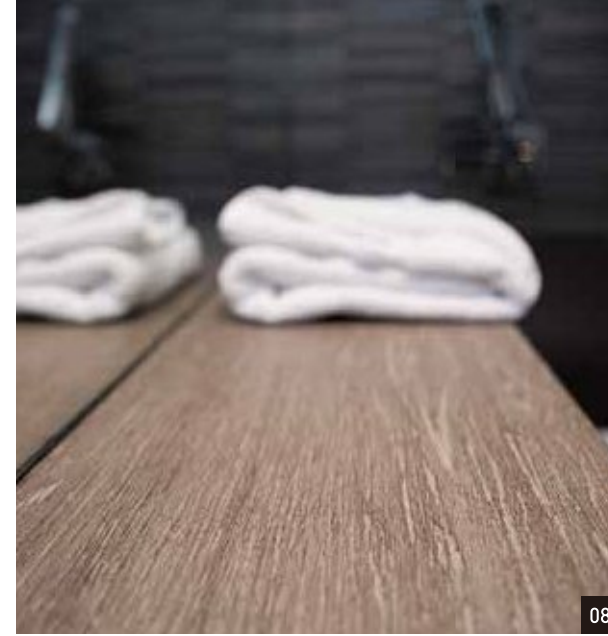


Chevron wood ◆ ◆ DW716

Global Reference

Bodaq creates various space as new thinking and possibilities.

Bodaq, global trend-leading interior film is now widely used throughout Europe and Asia. Bodaq is a well-known interior finish with high-value brand. We supply our products to many overseas customers. To Create own your space quick and easy way with Bodaq.



08



01



02



03

- 01 VANKE E-mart
- 02 Carrefour
- 03 Shanghai Dongfang Hospital
- 04 TOTO Chain Store
- 05 Longfor No.1 Bar
- 06 Suning Chain Store
- 07 China Life Insurance Office



11



09



10

- 08 Hotel Appia
- 09 Auchan - Accueil
- 10 Golf National
- 11 Hotel NOVOTEL
- 12 Brioche Dorée
- 13 Hotel Renaissance
- 14 Hotel Almeroz



04



06



12



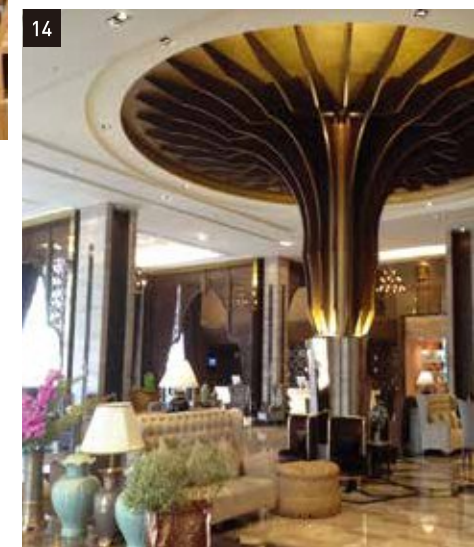
05



07



13



14

Technical Information

Becoming the leading company in CREATING LIVING SPACE that SECURES THE VALUE OF HUMAN AND ENVIRONMENT

High quality surface finishing materials with L.E.A.D

Interior Film BODAQ

BODAQ is a decorative film with adhesive that is applicable on site.

Recreate your world with BODAQ. It is an ideal way to finish many environments on site with little or no down time. BODAQ is used extensively for interior applications such as Hotels, corporate lobbies and elevators as well as exterior applications.

With its light weight and minimal thickness, BODAQ is a popular choice for cruise ship interiors.

BODAQ offers hundreds of patterns including solid color, abstract drawings and natural material replications such as wood and stone. BODAQ's original pressure sensitive adhesive ensures clean, fast installation on a variety of substrates. With its superior flexibility, BODAQ can be installed on highly detailed and 3D surfaces.

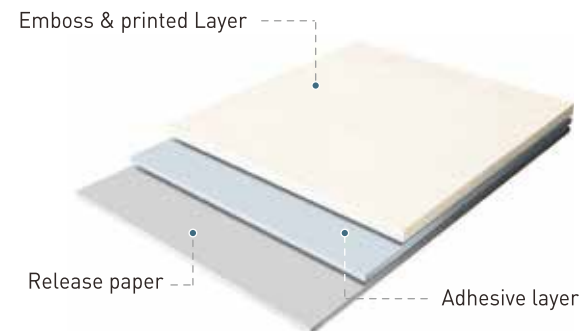
Product Structure

BODAQ is a printed film with adhesive

1. Emboss & printed film layer(vinyl-chloride plastic)
2. Simplified adhesive(acrylic plastic)
3. Release paper

The above is a representative structure of BODAQ.

The actual structures and materials may be slightly different for each series.



Easy to install with Airbubble control.

BODAQ is applied using an Acryl type adhesive, which has an adhesive surface with grid grooves

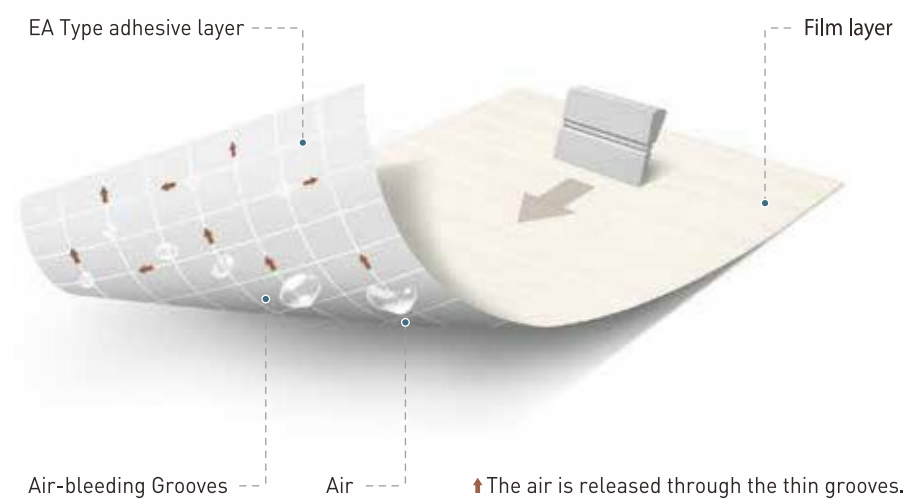
for air-bleeding Airbubbles between the film and the substrate.

The Airbubbles are released along these grooves, enabling the film to be quickly and easily affixed to large or complex surfaces.

This provides a higher quality finish.

Facilitates the release of air when the film is affixed, enabling easy application to large or complex surfaces.

Air bleeding Structure



Environment



We consider nature Hanwha L&C's 'Bodaq' is an eco-friendly film that considers healthy environment.

- Free from harmful heavy metals (lead, cadmium, mercury, hexavalent chromium, etc).
- Formaldehyde (HCHO), the substance that causes sick house syndrome, is not released.
- Minimized the release of volatile organic compounds (TVOC, toluene, etc.) harmful to the environment by generating odor and ozone.
- It meets the safety standard (KC mark standard) applied to wallpaper and paperboard.
- Meets the safety requirements for hazardous chemicals in the Common Safety Standards of Children's Products.
- Excellent antimicrobial and anti-mold function, which helps to maintain a pleasant surrounding environment.

Heavy Metal *Pb, Cd, Hg, CrVI		Formaldehyde *HCHO	
Pb: mg/kg	None detected	0.12mg/m ³	None detected
Cd: 0.5mg/kg			
Hg: 2mg/kg			
CrVI: 1mg/kg			
Standard		Standard	



Hazardous chemicals criteria in the Common Safety Standards for Children's Products

Hazardous Substances *Sb, As, Ba, Cd, Cr, Pb, Hg, Se

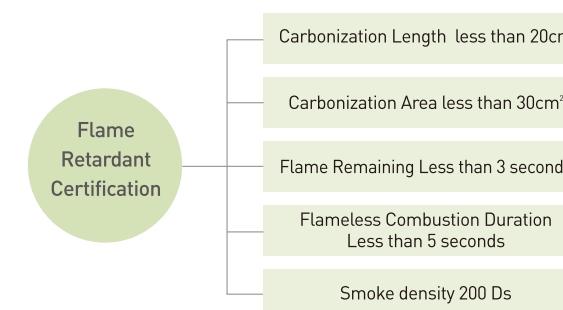
Sb: 60mg/kg	Satisfactory	Cr: 60mg/kg	Satisfactory
As: 25mg/kg			
Ba: 1000mg/kg			
Cd: 75mg/kg			
Pb: 90mg/kg		Hg: 60mg/kg	
		Se: 500mg/kg	
Standard		Standard	

Safety

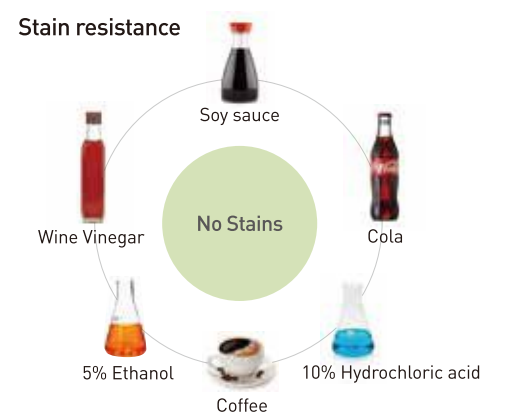


We consider Safety "Bodaq" is a safe interior film that can be used in any environment with excellent flame retardancy and quality stability.

Flame Retardancy (Certified by the Fire Industry Technical Institute)



Stain resistance



* Obtain the certificate, Introduction of company for bidding construction projects, construction guide of our products by inquiring with our head office or distributor.

Technical Information

■ BODAQ Specifications

Item	Evaluation	Results
Dimensional stability	100 mm x 100 mm (4" x 4") crosscut is placed in the center of 150 mm x 150 mm (6" x 6") applied on 200 mm x 200 mm (8" x 8") aluminum plate and left for 2 days. Then, the largest gap at the crosscut point is measured.	Largest gap : under 0.3mm
Wear resistance	Rotated 7,000 times by a Taber Abrasion Tester (rotary wheel cs-10, 1,000cycle).	No change on surface pattern
Heat resistance	Adhesive performance measured when left in a temperature of 40°C(104°F) for 28 days after applied on an aluminum plate.	No abnormalities
Moisture resistance	Adhesive performance measured when left in a temperature of 45°C (113°F) and humidity of 95% for 30 days after applied on an aluminum plate.	No abnormalities
Cold shockproof nature	Film is applied on an aluminum plate, and a weight of 500g (1.1 lbs) is dropped from 10cm (3.9 inches) high under a temperature. Using a Duppon Impact Tester. (Impacter 12.7R)	No cracks on film
Weatherability	Irradiated for 250 hours using a Sunshine Weather-0-Meter.	up to Grey Scale 4 grade

■ Antibacterial Performance

Fungus Name	Immerse the specimen in the culture medium for 24 hours
E.Coli	Antibacterial activity value 2.0 or more
Staphylococcus aureus	Antibacterial activity value 2.0 or more

※ Note

- The test bacterium was cultured for 24 hours at 35 ± 1°C and 90% RH (Relative Humidity).
- Actual antimicrobial activity is more than 2.0 antimicrobial activity.

Classification	Solvent	Result	Reference
Water	Water	No change after 24 hours	Certified institutional certificate
Acid	Acetic Acid(44%)		
Ketone	Acetone		
Chemical Solution	Aqueous Ammonia(10%)		
	Sodium Carbonate(10%)		
	Sodium Chloride(15%)		
Alcoholic	Ethanol		
Chemical	Cleaning Agent		
	Iodine		
Contaminant	Coffee		
	Concentrated Milk		
Oil	Olive Oil		
	Paraffin Oil		

■ Compatible and incompatible materials for the application of BODAQ are as follows

Groundwork material	BODAQ	Groundwork material	BODAQ
Luan veneer	○	Overlay application Overlap Application	○
China veneer	○	Decorative sheet Melamine Board	○
Wood Particle board	○	Plastic Laminate	△*
	MDF	Glass	○
Pure wood	×	Surface is Quality of glass falt and smooth	○
Boards Plaster Board	○	Artificial Mable	○
	Volcanic Silicate board	×	Acrylics *
Mortar Silicate calcium Board	×	ABS *	×
	Mortar	×	Hard Vinyl Chloride
Baked Enamel steel finish	○	Soft Vinyl Chloride	×
Metal Galvanized steel plate	○	Plastics Polycarbonate *	×
	Vinyl Chloride steel plate		○
	Aluminum		○
	Stainless steel		○
	Copper		×
	Stereotype / Tin		△
	Sealing Agent		△

※ Need to confirm appearance in advance with test sample for materials marked with △ Needs special primer for × material

※ ○ : Compatible
 × : Possible to fail in adhesion
 △ : Base substrate irregularities are visible

*: May swell from gas. Contact HANWHA for questions

■ ComResistance to solvent and Chemicals

Classification	Solvent	Immersion time	Results
Water	Water	24 hours	No abnormalities
Acid	Chloride(10%)	24 hours	No abnormalities
Base(alkali)	Sodium hydroxide(10%)	24 hours	No abnormalities
Alcoholic	Ethanol	24 hours	No abnormalities
Ester	Ethyl acetate	5 minutes	It deteriorates*
Ketone	Methyl ethyl ketone	5 minutes	It deteriorates*
Perfume fellows system	Toluene	5 minutes	It deteriorates*

* : It exfoliates from a base material

Instructions for Construction

Film Application Environment

Application Environment

- Film application temperature range: 12°C~38°C (54°F~100°F)
- Use heat gun to raise temperature of substrate and film when temperature is low. When temperature is low, there may be adhesion failure or film swelling.
- When temperature is high, film may be difficult to apply because it becomes more flexible.
- If folded film is applied on a round corner, the corner may turn white for some surfaces. Apply film while warming it with a heat gun, or warm it after application. Exercise caution when cutting film under low temperature, as it may easily split.

Preparation

- Check the condition of the type of surface which the film is to be applied before construction.
- In the case of MDF, depending on the density, it affects the adhesion and stability in construction. Therefore, it is necessary to use MDF with uniform density.
- Surface treatment operations should be aware of the following characteristics
 - Painted surface: It is necessary to remove the contaminants on the surface and proceed after the treatment of damaged surface.
 - Non-painted surface: If the surface is rough, you should clean the surface with sandpaper first.
- Prior to installation, check for any abnormality (product name, surface condition, flammability etc.) of the selected product.
- When you build the site in weathers such as spring or autumn, or even during dawn, be sure to remove moisture that may remain on the wall.
 - Please keep the room temperature of the construction site at room temperature (15°C ~ 23°C) in order to remove moisture effectively
- Please keep in mind that when storing the product for a long time outside the packaging, it may cause cracking and weakening of the adhesives of the product. If there is a gas generating substance or a wax ingredient on the base material (adhered surface), please note that the adhesive may weaken.

Primer Treatment

- The primer used in film construction shows the best performance and stability when using "Bodaq primer" produced by Hyundai L&C.
 - MDF, PB and other woods have a very high absorption rate of primer due to the nature of the material. In case of the cut side, it should be applied 2-3 times.
 - It should be dried for at least 2 hours, and the film should be attached with an appropriate amount of force (pressure)
- [※ Bodaq primer (water-based) should be stored in a cool, shaded place at room temperature. Please be careful when storing in winter because frozen products cannot be used.]

Notes for Application

- When cutting or re-rolling film in a roll, take measures to prevent damage to the film surface, such as applying a smooth surface on the work table, or cleaning the floor.
- Exercise caution when unrolling and flattening film to prevent the separation of release paper from the film.
- For temporary storage of film, roll it tight, tape the leading edge, and keep it upright.
 - Do not drag cut film or allow its surface to contact the floor, It may be damaged to broken.
- To avoid separation at a butt joint, apply two or three coats of primer on the base substrate under the joint.
 - Do not cut the base substrate when cutting multiple film sections.
- If pressure is constantly applied to the film after it is applied, it may wrinkle, Exercise special caution when applying film around door knobs.
 - Apply gentle pressure on film, or warm applied film with a heat gun to improve its adhesive performance.
- Discard product scraps to minimize the chance of tripping or slipping.

Notes on Construction

- Since the color difference may occur between products (by printing LOT), it is necessary to check the LOT before construction.
- The applying surface should be sanded and primer is recommended to reinforce adhesion.
- In case of overlapping between products, certain patterns should be applied after primer application and, more force must be applied.

Cautionary points after completed application.

- Adhesive performance improves gradually after application, and reaches its best strength in 3~7 days.
- Dispose of all waste material in accordance with all appropriate regulations

Precaution : Special Location

#1. Application on a PVC Coated Steel Door

- Contact Exterior-film when applying on a PVC coated steel door which is facing outside.
- Exercise caution when applying on multiple layers over an embossed vinyl-chloride steel substrate.

#2. When the Surface Contacts with Rubber

- When Bodaq is used for counters, top panels, or toilet partitions which touch rubber legs and door stops for long periods, Bodaq may become discolored depending upon the composition of the rubber.

#3. Multi-Layered Application

- Applying multiple layers of film will result in the film not being approved as a noncombustible material.
- Make sure to apply Bodaq after application and complete drying of an approved Bodaq primer.
- Some film may be difficult to layer due to the embossing(PZ, NS, ZSW, RM) Please contact Hyundai if you have questions.

Precaution : Special Patterns

Notes on use according to the characteristics of each product material

- Deep & Natural Emboss Type
 - Due to the depth of the embossing, primer treatment and more pressure should be applied in overlapping and bending construction.
- High Gloss Type
 - The hardness of the product is high that it needs to be finished with sufficient force to prevent cornering to have a neat finish.
- Special Coated Suede Type (B201X)
 - Since it is a special surface coated product, please make sure to set the room temperature above 15°C when installing corners.
 - When wiping the surface after installation, use neutral detergent or water to prevent damage.

Notes on Storage and Delivery

- For storage and delivery, stack cartons(film roll packages) so that their labels face the same side. Do not stack more than seven cartons, and do not stack more than one pallet.
- Do not drop cartons when delivering them. The edge of products may crack or become damaged.
- Store in a clean place with a temperature under 38°C , avoiding direct sunlight and high humidity. Use within one year.
- Pack remaining materials as they were originally packaged at time of purchase and store them in the conditions listed above.
- Exercise caution when storing the remaining Bodaq after usage. When storing rolls, prevent the rolls from unrolling by tightly rolling and taping them by hand. If stored film loosens on the roll, the release paper may detach from film.

How to Remove Bodaq

To remove Bodaq may become more difficult to remove over time after application. However, if it is necessary to remove the film, follow the instructions below.

1. Carefully make a 20cm (8") cut on finished Bodaq to avoid damaging the base.
2. Warm and soften Bodaq with home blow dryer or heat gun on a low setting.
3. Peel off Bodaq in small strips.
4. Remove adhesive remaining on the base with an approved adhesive remover.
5. Bodaq applied on plaster board, calcium silicate board, plywood, or MDF cannot be removed without damaging the face of the substrate.


If multiple layers are applied, Bodaq architectural finishes are not classified as a noncombustible material.




Exercise caution when applying where noncombustible material is required.

※ You may obtain the certificates of our products, the name of the construction company, and the construction manuals by inquiring with the headquarters or the agency.



Tools for Applying Interior Film


1. Primer

Sort		Primer Application
Product Name		Water-based Primer for Interior Film (BODAQ primer)
Photos		
Size		1kg, 3kg, 20kg
Product Specifications & Features	Main Component	Synthetic Rubber
	Appearance	Soft Blue Emulsion
	Solid Content	60±2%
	Viscosity	6,000~7,000cps (at 25°C)
	Specific Gravity	1.0g/cm ² or more (at 20°C)
	Open Time	5~15 min (at 20°C)
	Storage Stability	9 Months unopened (sealed at room temperature)

Primer Application		
Oil-based Primer for Interior Film (BODAQ primer 2)	Diluted oil-based Primer for Interior Film(BODAQ primer 3)	Power Primer for Fixing of Defects (MP01)
		
1kg, 3kg, 15kg	1kg, 3kg, 15kg	Acetone
Chloroprene Rubber	Chloroprene Rubber	Used to increase the adhesion when applying on bent or rounded surfaces. Type : Elastic adhesive Main component : Chloroprene Rubber Appearance : Soft Yellow Slime Solution
Soft Yellow Slime Solution	Soft Yellow Slime Solution	
20±1%	11±1%	
300~350cps (at 20°C)	50~60cps (at 20°C)	
0.86±0.05g/cm ² (at 20°C)	0.86g/cm ² (at 20°C)	
10~2 min (at 20°C)	10~20 min (at 20°C)	
9 Months unopened (sealed at room temperature)	9 Months unopened (sealed at room temperature)	

2. Tools

Sort	Primer Covering Tool	
Product Name	Brush	Roller(Rolling Brush)
Photos		
Size	Varies (Depends on Makers)	Varies (Depends on Makers)
Product Specifications & Features	Used when applying primer to a narrow area. The size of the brush used varies with each constructor, the quantity of primer used depends on the size of brush.	Used when applying primer to a large area.

BODAQ Affixing		Flattening
Squeegee	Wool Squeegee	Sand Paper
		
Normally 72 x 103mm	Varies (Depends on Makers)	#100 (=100mesh, 1inch ²)
Used to pressure-bond BODAQ Interior Film to the surface	Used for minimum damage of the surface while pressure-bonding BODAQ Interior Film. Removes bubbles gently compared to plastic hera.	Used to smoothen the surface after applying primer in order to achieve cleaner results.

Certification



| Korea Eco Label



| Carbon Footprint



| Atopy Test Report



| China Fire Retardant A2 test



| China Fire Retardant B1 test



| MPA- B1 Fire Retardant 2017



| Heavy Metal Free, Non Phthalate, HCHO 2017



| Anti-Bacteria 2017



| Gas Emittance 2017



| General Property 2017



| General Property 2017



| General Property 2017



| Contraction and Contamination 2014



| BODAQ MSDS



| Fire Retardant Approval



| General Property 2017



| General Property 2017



| GHS MSDS OK-BODAQ PRIMER 2017

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