A close-up photograph of an aircraft interior panel. The panel is a light grey color with a fine, grid-like texture. It features a horizontal silver-colored handle or latch. Below the handle, there is a dark grey, perforated section. The panel is mounted on a black seat or structure. The overall aesthetic is modern and functional.

SIMONA Boltaron® FAR-Rated Materials
Lightweight thermoplastics for aircraft interiors

SIMONA
bol Sharon

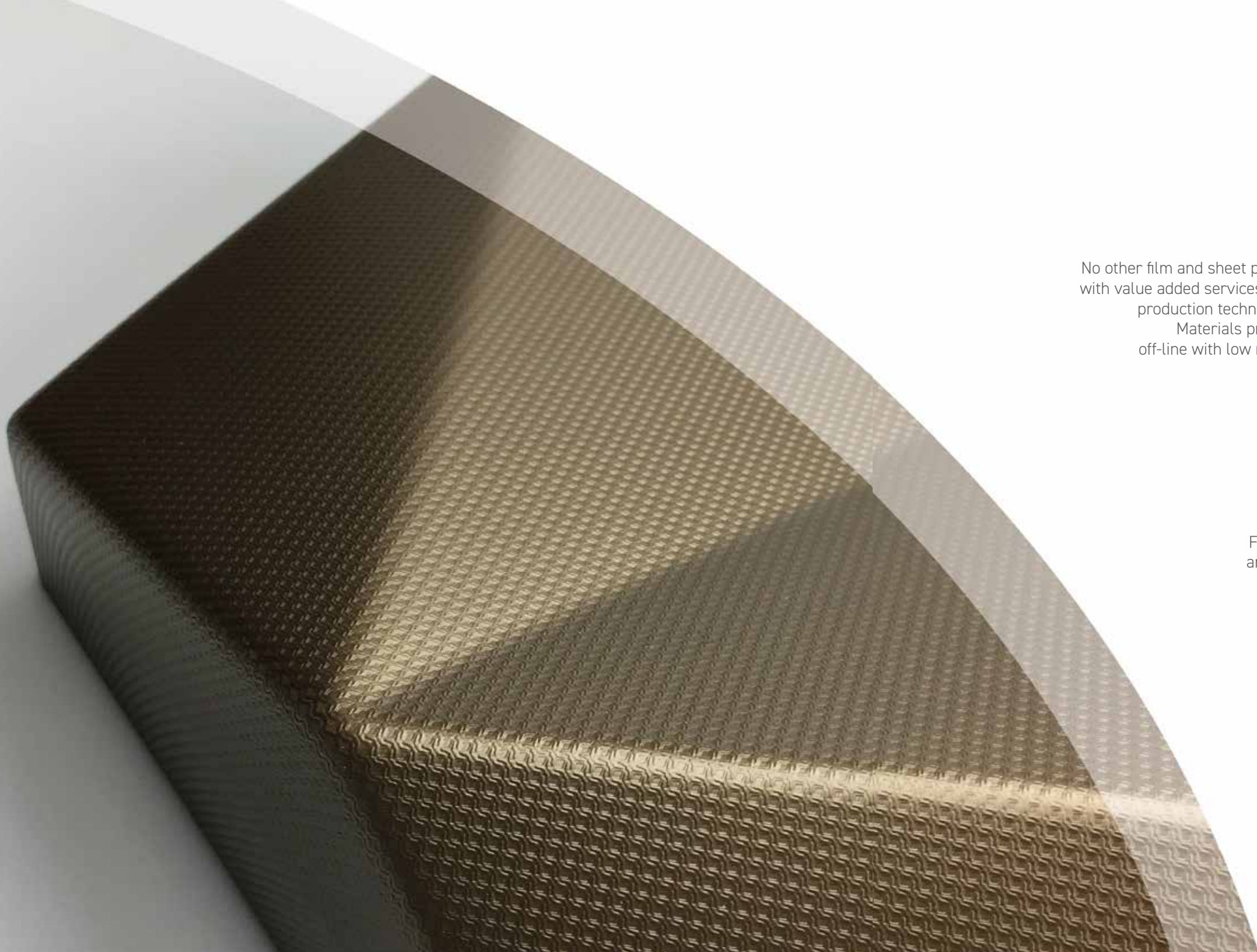
CONTENTS

CLASS REDEFINED A NEW ERA OF SOPHISTICATION AND SUSTAINABILITY IN AVIATION

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RELIABILITY MEETS INNOVATION

Quality, reliability, and responsive customer service make SIMONA Boltaron the FAR-rated thermoplastic sheet supplier of choice for customers around the world.



UNPARALLELED MANUFACTURING CAPABILITIES

No other film and sheet producer offers calendering, extrusion and press lamination under one roof, with value added services including printing, dye sublimation and thermoforming. These unmatched production technologies create tailored solutions to meet the needs of a specific application.

Materials produced using more than one of these processes can be imparted in-line or off-line with low minimums to create an unlimited selection of ultra-high performance sheet products impossible to achieve using any single production process alone.

REGULATORY COMPLIANCE

For quality assurance, SIMONA Boltaron technicians utilize the latest testing and technology to produce comprehensive and cost-effective results directly on site including full flammability, smoke and heat release. Materials are batch tested at an independent laboratory for consistent compliance.

SUSTAINABILITY AND LONGEVITY

SIMONA Boltaron materials are manufactured for durability, long program life cycles, consistency, and the critical performance required for aircraft environments. All materials are made at one site using similar formulations, allowing for internal recycling and environmentally conscious manufacturing practices.



SUPERIOR THERMOFORMABILITY

All SIMONA Boltaron grades are manufactured under tightly controlled conditions for consistent behavior during thermoforming. After forming, the materials maintain uniform wall thickness and surface appearance with excellent texture retention and detail.

The material does not require pre-drying before thermoforming, which leads to more flexibility in the forming process and reduces cost by eliminating the need for drying ovens.

In-house thermoforming experts provide hands-on support for forming for difficult and unique parts production.



SUPERIOR IMPACT RESISTANCE

Boltaron sheet products exhibit exceptional impact resistance, yielding many advantages in processing and use.

DURABILITY AND LONG SERVICE LIFE

Durable thermoformed parts with excellent long term appearance can be achieved using thinner, lighter gauge sheet, while still offering exceptional impact resistance, looking newer longer, and decreasing replacement costs. These materials have reduced notch sensitivity. This stress point resistance means increased engineering capabilities, such as stitching, as well as reduced waste from in-process breakage.

SPECIFICATION PERFORMANCE AND DESIGN

Boltaron materials are specially formulated to meet the exact requirements of the Federal Aviation Administration, as well as major airframe manufacturers. Based on the regulatory requirement, application, part type and size, we can recommend an exceptional material solution from the 9000 and 4000 Series. Materials in both series can be customized with a wide range of design possibilities.

9000 SERIES

Materials meet the flammability, smoke and heat release requirements specified by **FAR 25.853 (a) and (d)**.

4000 SERIES

Materials meet the flammability requirements specified by **FAR 25.853 (a)**.

1000 SERIES

ABS grade product offering a balance of rigidity and durability in an easy-to-process product.

9 0 0 0 S E R I E S

9 0 0 0 S E R I E S

THESE MATERIALS MEET THE FLAMMABILITY, SMOKE, AND

HEAT RELEASE REQUIREMENTS OF FAR 25.853 [A] AND [D]

Boltaron® 9815N

Next Generation
Opaque
Thermoplastic
Sheet

OSU 65/65
Izod Impact Strength
3.26 ft-lb/in (174 J/m)



Sheet with Extruded Texture

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.040 to 0.250 (1.02 to 6.35 mm)
Custom Custom sizes and gauges available on request

Applications

Seat parts, interior components

Boltaron® 9815E

Opaque
Thermoplastic
Sheet

OSU 65/65
Izod Impact Strength
5.0 ft-lb/in (265 J/m)



Sheet Sizes

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.040 to 0.250 (1.02 to 6.35 mm)
Custom Custom sizes and gauges available on request

Applications

Seat parts, interior components

Boltaron® 9200

Light Blocking
Thermoplastic
Sheet

OSU 65/65
Light opacity



Lengths to 120 in. (3,048 mm)
Widths to 48 in. (1,220 mm)
Gauges from 0.047 to 0.060 in. (1.2 to 1.52 mm)

Applications

Window shades

For greater light opacity,
specify FAR 25.853 (a)
compliant Boltaron® 9250

Boltaron® 9815F

Thin Gauge
Thermoplastic
Film

OSU 65/65
Izod Impact Strength
5.0 ft-lb/in (265 J/m)



Sheet with Extruded Texture

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.010 to 0.40 (0.25 to 1.02 mm)

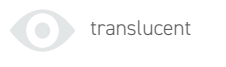
Rolls Available on request in gauges
<0.040 in (<1 mm)

Custom

Custom blank sizes,
gauges available on
request

Applications

Seat parts, interior components



9 0 0 0 0 S E R I E S

THESE MATERIALS MEET THE FLAMMABILITY, SMOKE, AND

HEAT RELEASE REQUIREMENTS OF FAR 25.853 [A] AND [D]

Boltaron® 9865 TERREFORM

Recycled Grade Thermoplastic Sheet
OSU 65/65
Izod Impact Strength
1.8 ft-lb/in (96 J/m)

Sheet Sizes
Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.040 to 0.250 (1.02 to 6.35 mm)

Custom Blank sizes, gauges available on request

Applications
Seat parts, interior components

Boltaron® 9850

55/55 Low Smoke and Low Heat Release
OSU 55/55
Low smoke under 150 Exceeds OSU and NBS smoke requirements
Izod Impact Strength
5.0 ft-lb/in (265 J/m)

Sheet Sizes
Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.040 to 0.250 (1.02 to 6.35 mm)

Custom Blank sizes, gauges available on request

Applications
Seat parts, interior components

Boltaron® 9850N

Next Generation 55/55 Low Smoke and Low Heat Release
OSU 55/55
Izod Impact Strength
1.7 ft-lb/in (91 J/m)

Sheet Sizes
Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)
Gauges from 0.028 to 0.250 (0.71 to 6.35 mm)

Custom Blank sizes, gauges available on request

Applications
Seat parts, interior components

Boltaron® 9816 VIO

Translucent FAR Rated Panel
OSU 65/65
Izod Impact Strength
Properties @ 0.177in (4.5mm)
1.0 ft-lb/in./in (53.4 J/m)
Properties @ 0.236in (6mm)
1.5 ft-lb/in./in (80.1 J/m)

Sheet Sizes
Lengths and Widths - Routed or formed to user specifications
Gauges >0.157 in (>4 mm)

Applications
Dividers, partitions, light diffusion panels, storage area doors, and equipment covers

Note: Available as finished panels only.



low flammability



low smoke release



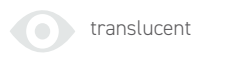
low heat release



impact resistant



light blocking



translucent

4 0 0 0 S E R I E S

4 0 0 0 S E R I E S

THESE MATERIALS MEET THE FLAMMABILITY REQUIREMENTS OF FAR 25.853 (A)

Boltaron® 4330

**Superior
Impact
Resistance**

Izod Impact Strength
18.0 ft-lb/in (953J/m)



Sheet Sizes

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)

Gauges from 0.028 to 0.250
(0.7 to 6.35 mm)

Custom Blank sizes,
gauges available
on request

Applications

Tray tables and seats

Boltaron® 4365 TERREFORM

**Recycled
Grade
Thermoplastic
Sheet**



Izod Impact Strength
3 ft-lb/in (160J/m)

Sheet Sizes

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)

Gauges from 0.028 to 0.250
(0.71 to 6.35 mm)

Custom Blank sizes,
gauges available
on request

Applications

Tray tables, interior components

Boltaron® 4800

**Low Smoke
Opaque
Thermoplastic
Sheet**



Izod Impact Strength
5 ft-lb/in (267J/m)

Sheet Sizes

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)

Gauges from 0.040 to 0.250
(1.02 to 6.35 mm)

Custom Blank sizes,
gauges available
on request

Applications

Tray tables, interior components

Boltaron® 4430 Opal

**Enhanced
Pearl Effect**



Izod Impact Strength
1.5 ft-lb/in (80J/m)

Sheet Sizes

Lengths to 120 in. (3,048 mm)
Widths to 60 in. (1,524 mm)

Gauges from 0.028 to 0.250
(0.71 to 6.35 mm)

Custom Blank sizes, gauges
available on
request

Applications

Tray tables, interior components

Boltaron® 4350 VIO

**Translucent
Sheet**



Izod Impact Strength
10 ft-lb/in (534 J/m)

Sheet Sizes

Lengths and Widths -
Routed and formed to user
specifications

Gauges from 0.062 to 0.250
(1.57 to 6.35 mm)

Applications

*Dividers, partitions, light
diffusion panels*



low flammability



low smoke release



low heat release



high temperature resistance



impact resistant



light blocking



translucent

1000S SERIES

Boltaron® 1330

Medium Impact ABS Grade Sheet

Izod Impact Strength
4.6 ft-lb/in (246J/m)



Sheet Sizes

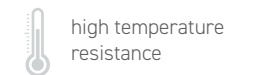
Lengths Custom
Widths to 106 in. (276 mm)

Gauges from 0.050 to 0.300
(1.27 to 7.62 mm)

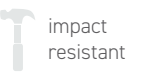
Custom Custom color range,
select textures

Applications

*Interior applications, equipment
enclosures, housings, claddings
where flammability, heat &
smoke release not regulated*



high temperature
resistance



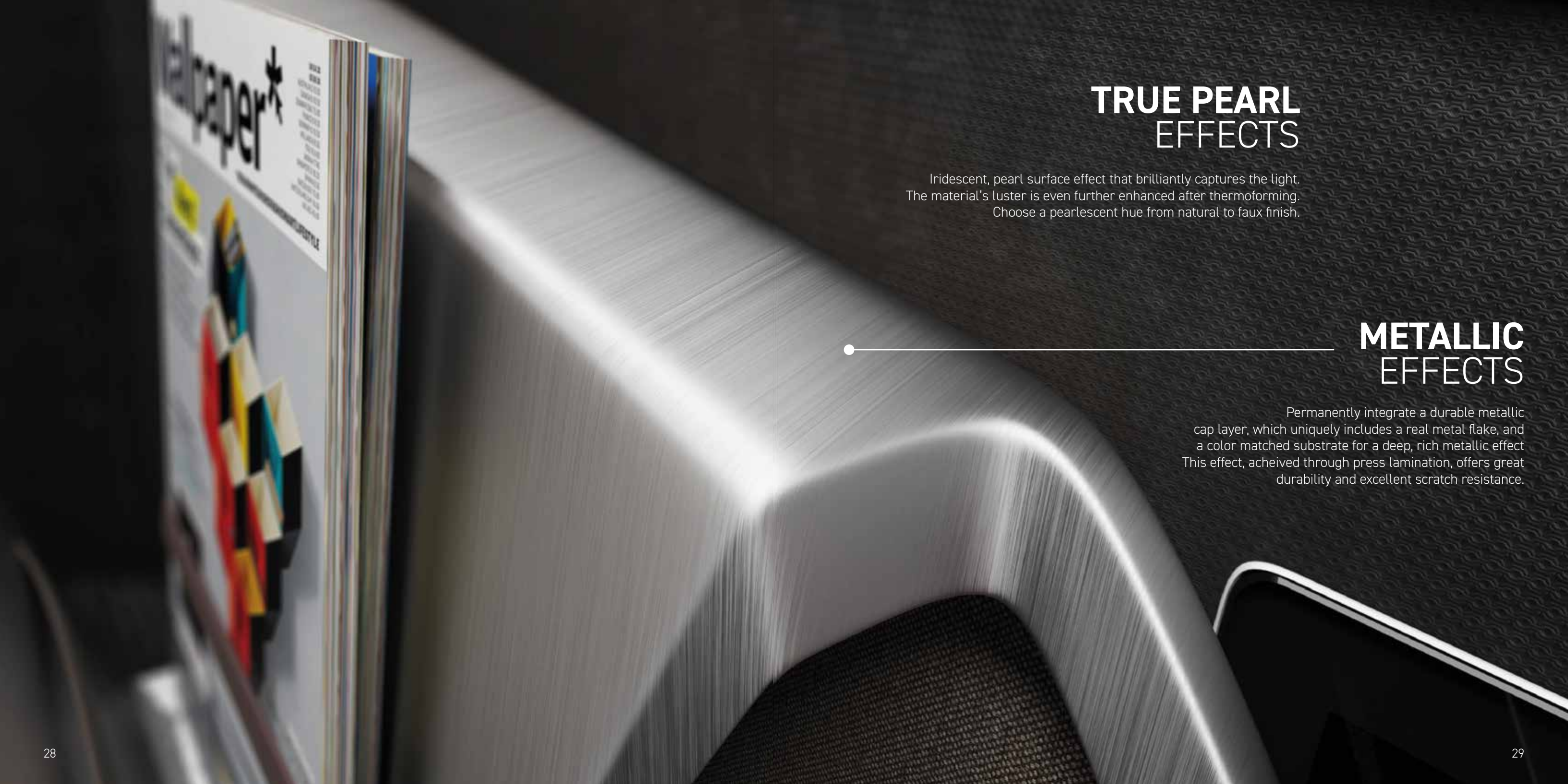
impact
resistant

YOU IMAGINE WE INNOVATE

SIMONA Boltaron's sales and engineering teams have gone to great lengths to bring to life the inspired visions of aircraft interior designers, airline brand managers, and seat manufacturers to challenge the traditional aesthetics of aircraft interiors. The result is a portfolio of custom design capabilities that transcend the standards for opaque thermoplastic sheet with eye-catching textures, metallics, pearlescents and decorative prints.

HANDS-ON FROM DESIGN TO DEVELOPMENT

SIMONA Boltaron strives to be innovative, adding value to existing products and providing solutions for new, unusual and different sheet parts. For even the most complex applications, we offer specification, design and engineering support from concept to execution. Our state-of-the-art, multi-faceted thermoforming and parts fabrication facility is capable of producing high-end and decorative formed and fabricated products, specifically for challenging materials and demanding FAA compliance applications.

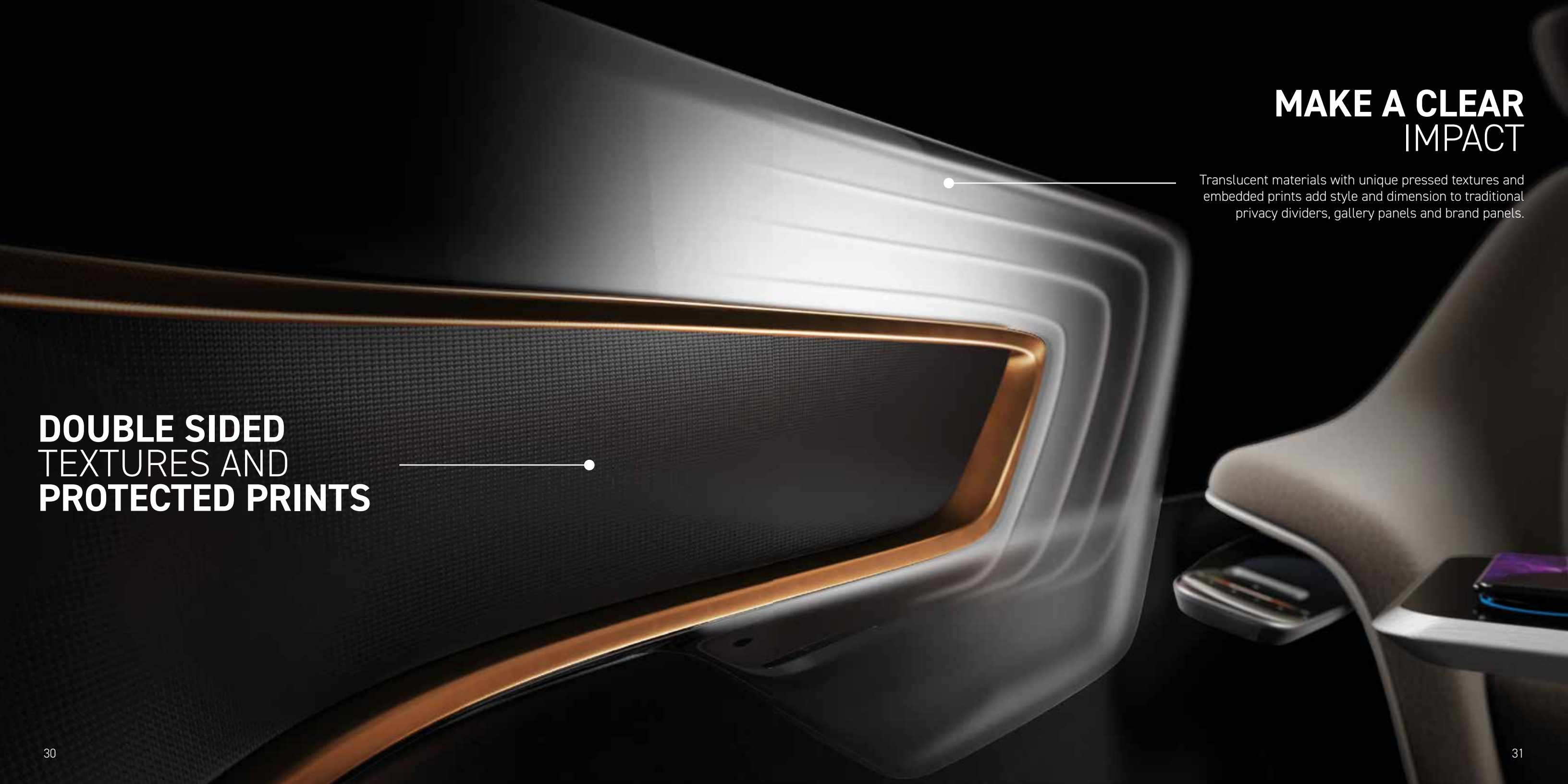


TRUE PEARL EFFECTS

Iridescent, pearl surface effect that brilliantly captures the light. The material's luster is even further enhanced after thermoforming. Choose a pearlescent hue from natural to faux finish.

METALLIC EFFECTS

Permanently integrate a durable metallic cap layer, which uniquely includes a real metal flake, and a color matched substrate for a deep, rich metallic effect. This effect, achieved through press lamination, offers great durability and excellent scratch resistance.



MAKE A CLEAR IMPACT

Translucent materials with unique pressed textures and embedded prints add style and dimension to traditional privacy dividers, gallery panels and brand panels.

DOUBLE SIDED TEXTURES AND PROTECTED PRINTS



UNLIMITED COLORS DELIVERED FAST

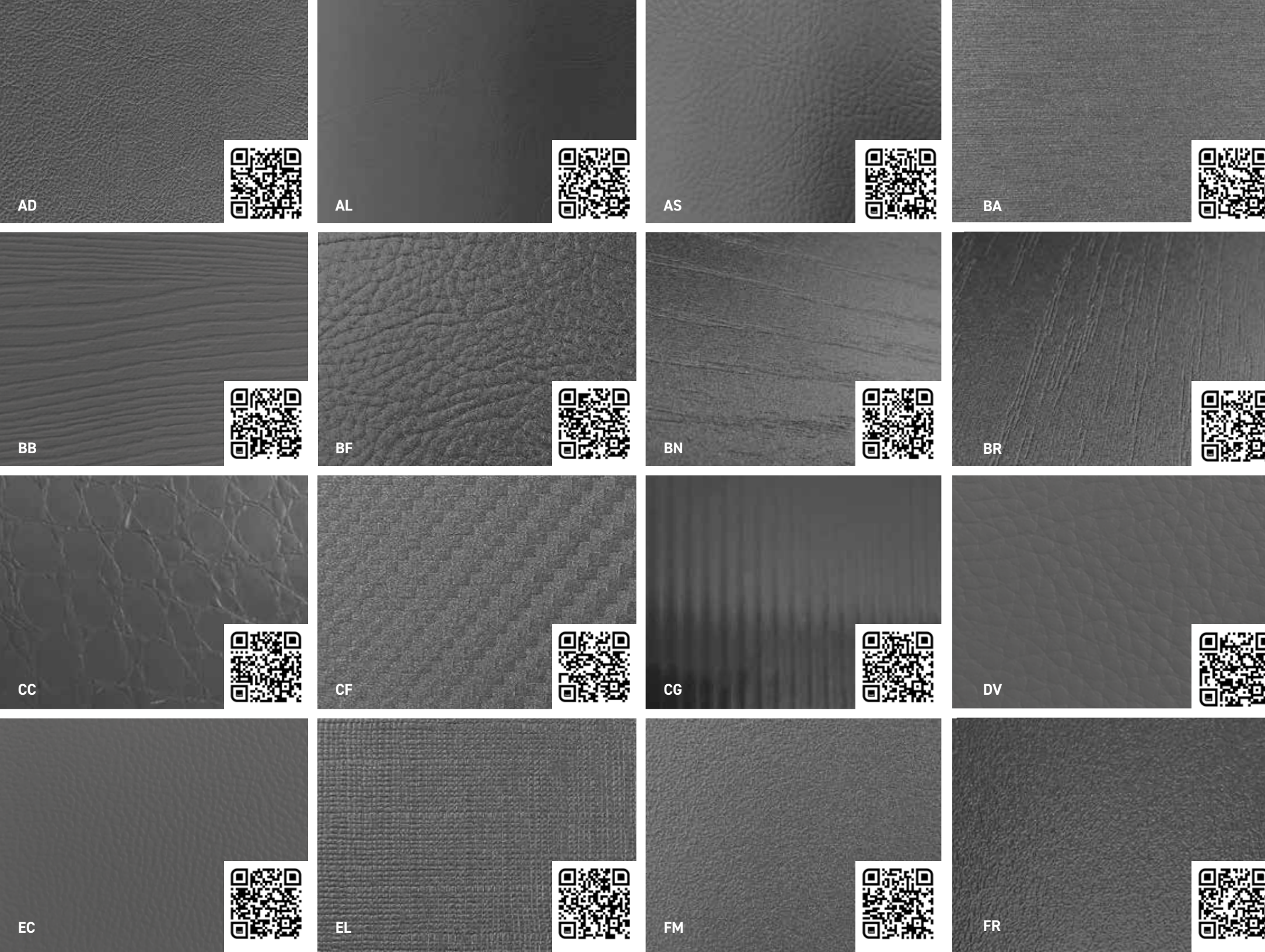
SIMONA Boltaron's state-of-the-art color laboratory specializes in producing quality colored sheet from standard gray and blue hues to dynamic, bright accent colors. Expert technicians and in-house technology offers custom color matching in a standard lead time of less than 3 days. Match to a physical sample or to a color reference number such as Pantone, NCS, or RAL.

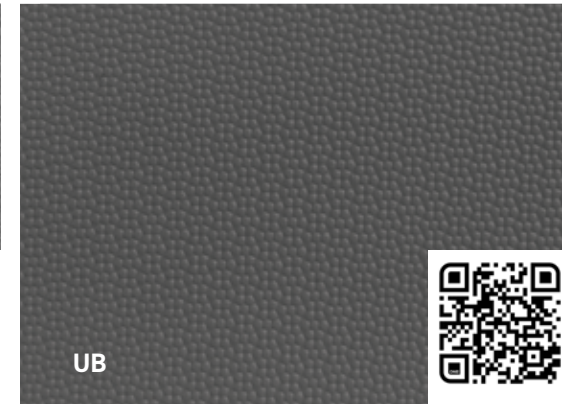
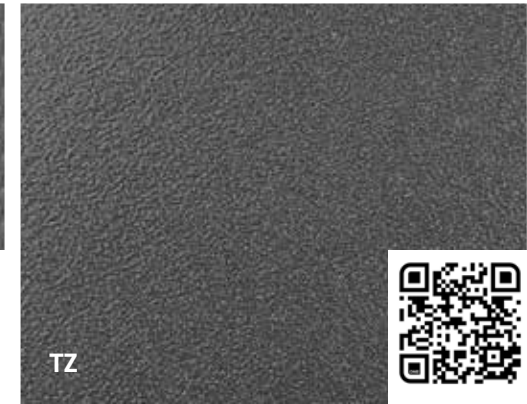
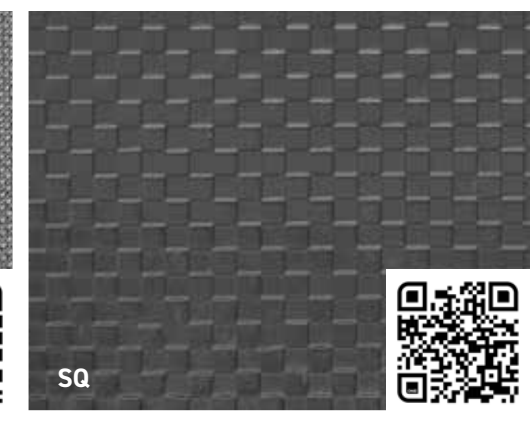
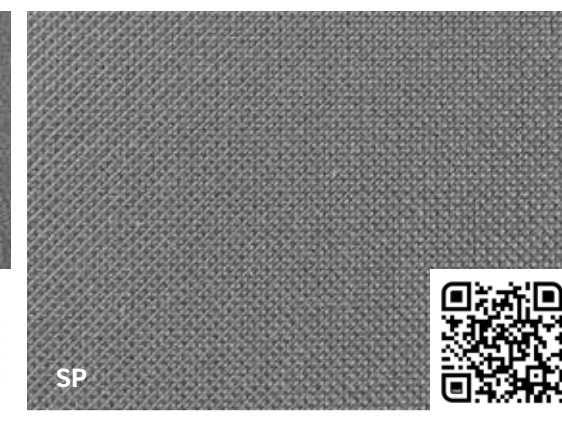
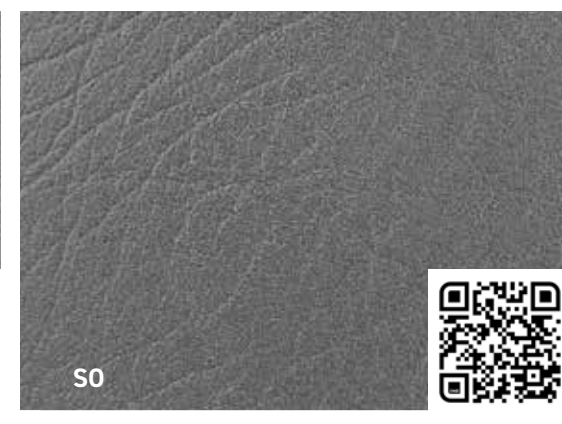
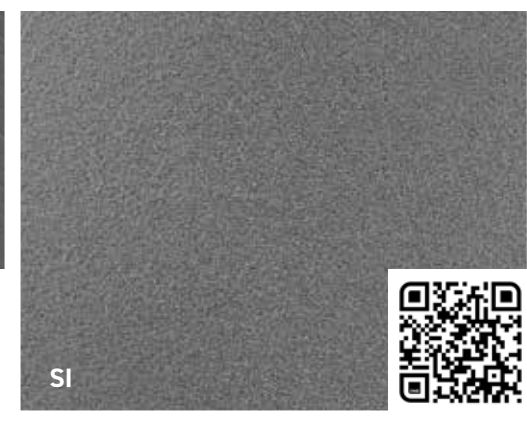
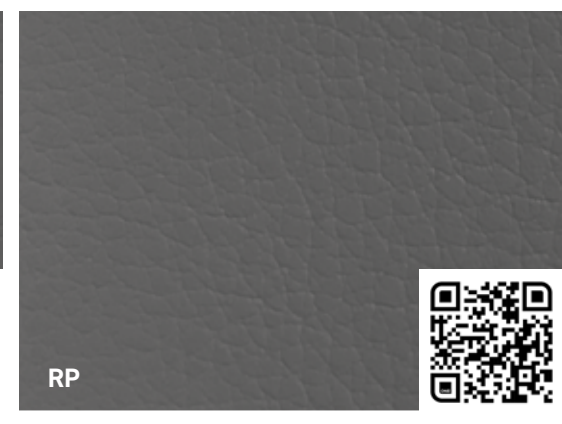
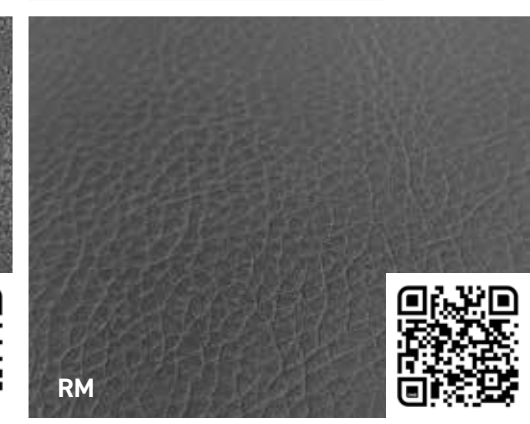
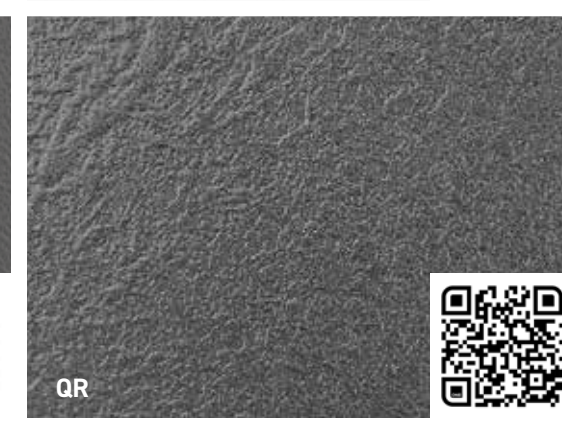
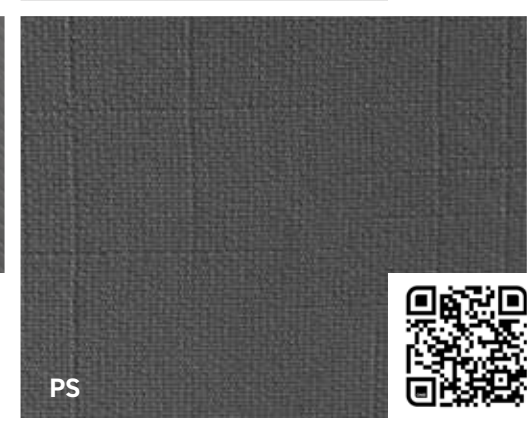
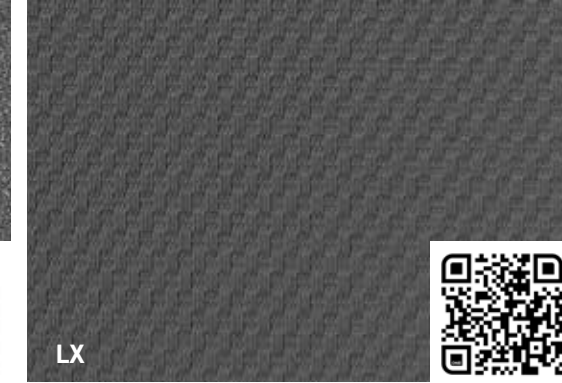
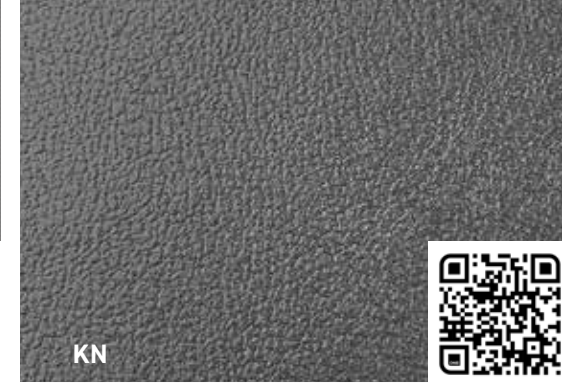
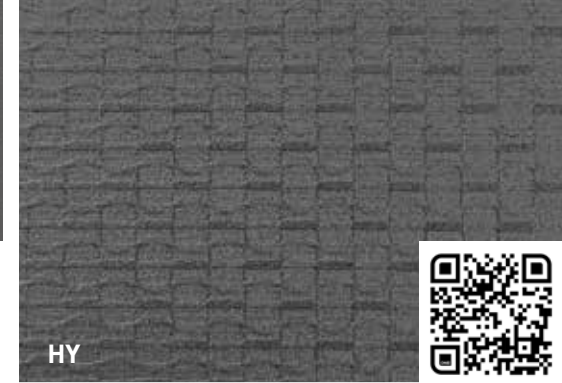
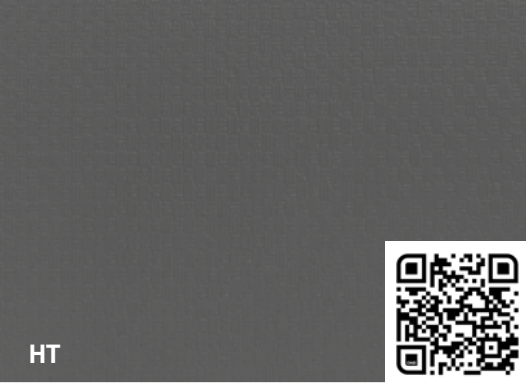
PRESSED TEXTURES

SIMONA Boltaron's press laminating process uses heat and pressure to emboss an infinite range of textures into thermoplastics sheets offline with low minimums.

SIMONA Boltaron supplies the decorative textured sheet ready for forming, creating greater possibilities for imparting texture economically and rapidly.

Choose from a library of unique pressed textures, or provide a physical sample.

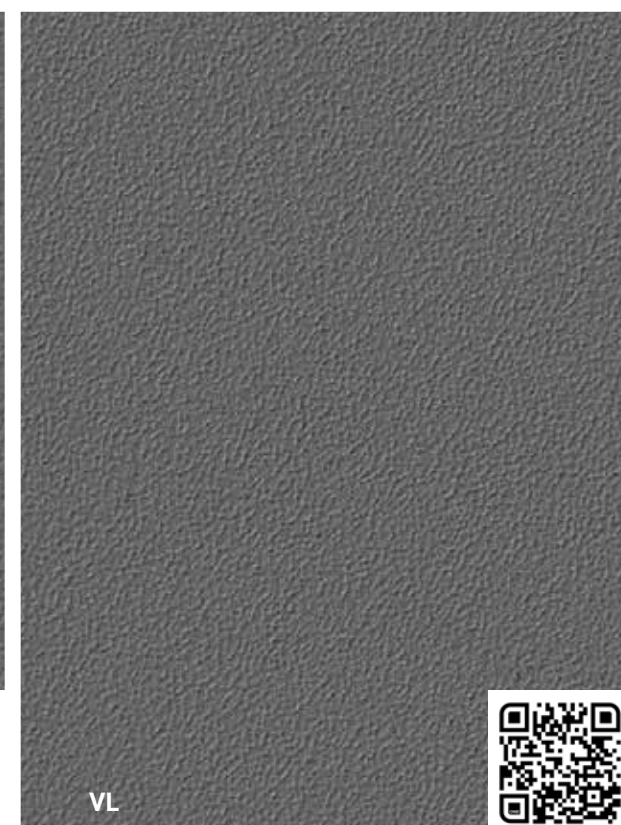
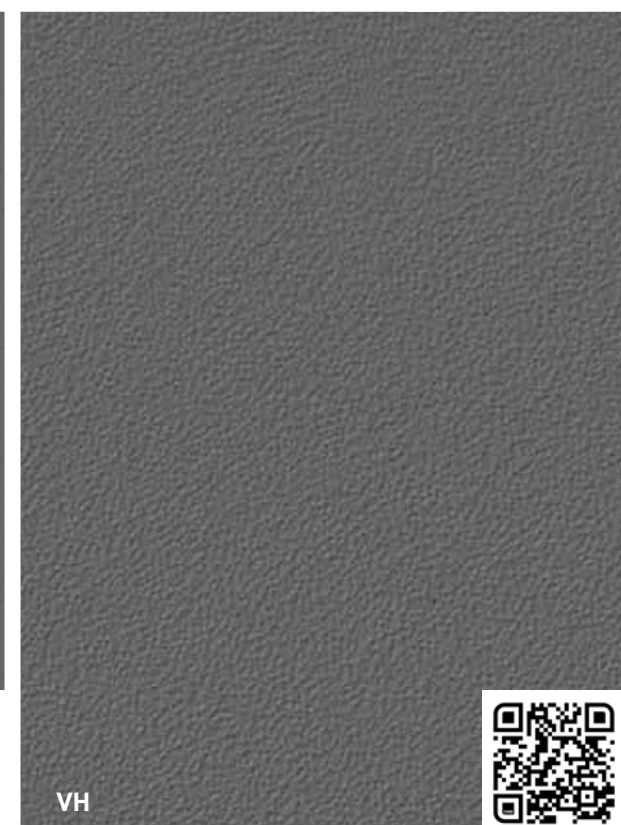
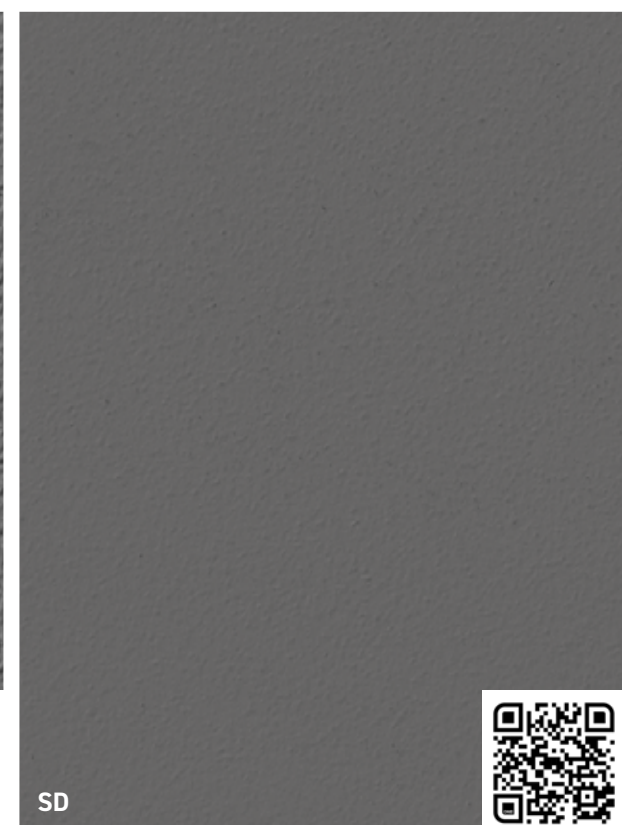
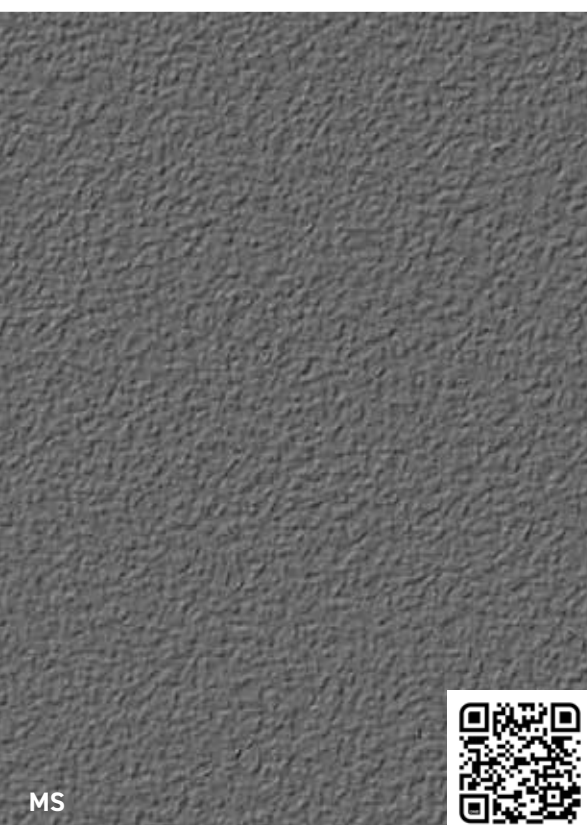
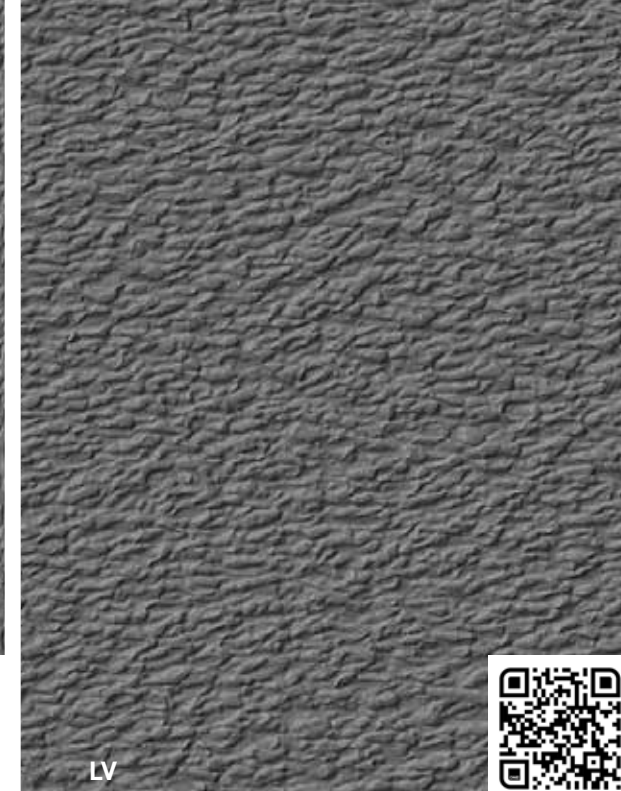
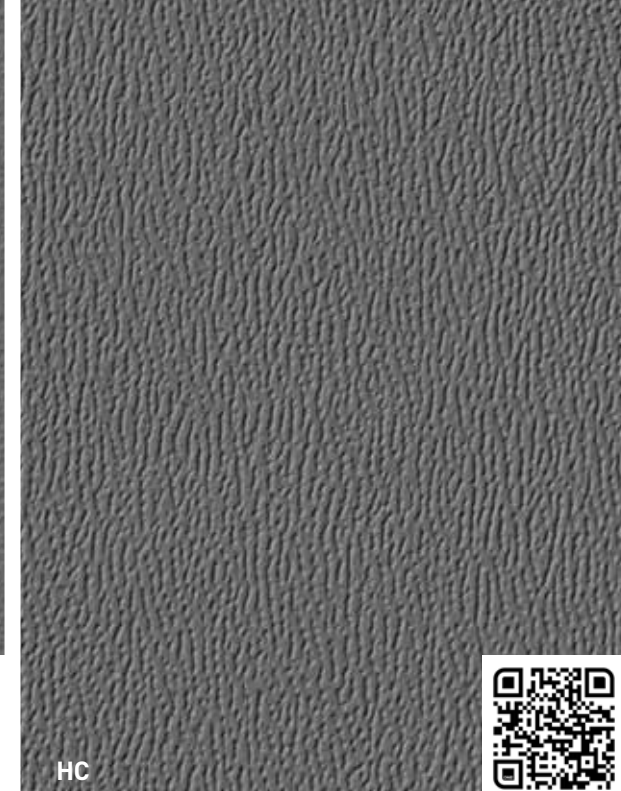
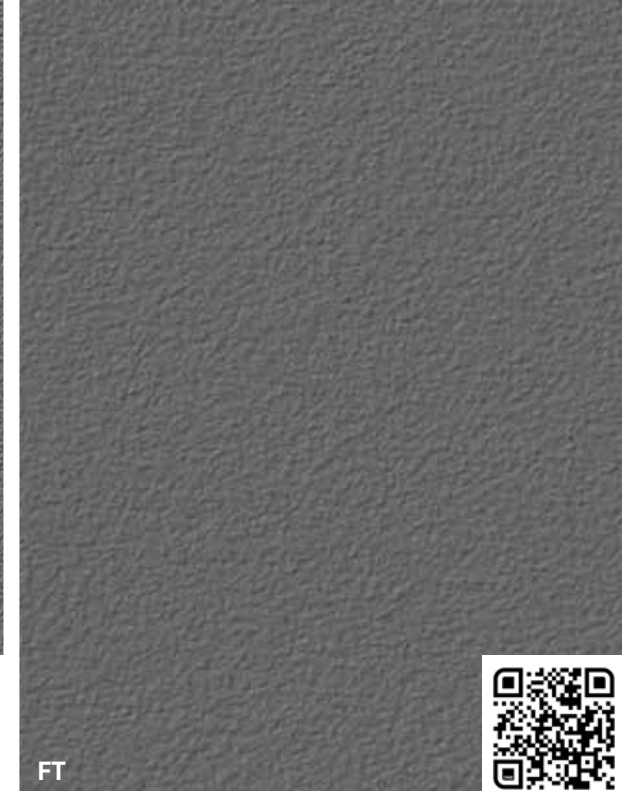
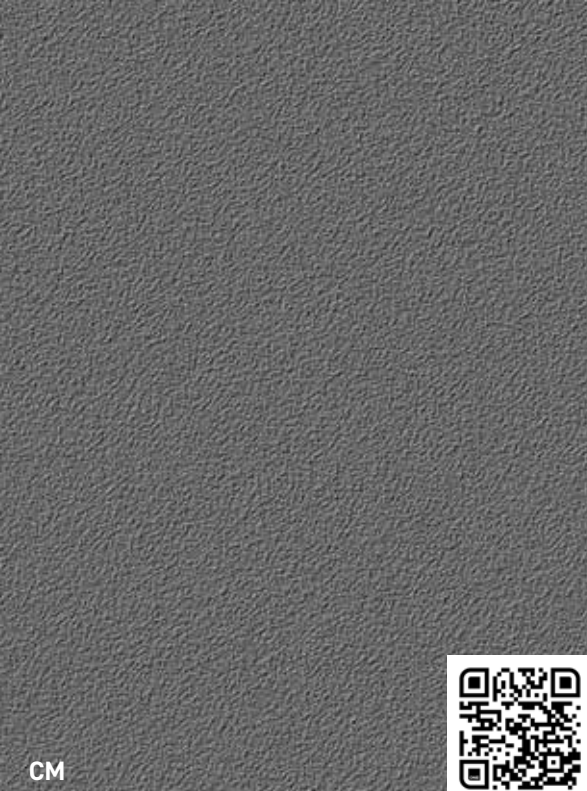




EXTRUDED TEXTURES

Standard extruded textures are imparted in-line at low cost and low minimums. Boltaron materials with extruded textures are available in medium to heavy gauge sheets suitable for most thermoforming, fabricating and machining applications. This standard range of embossed textures was selected to complement the requirements of the aircraft interiors industry.

SIMONA Boltaron offers more textures than any other film and sheet producer, opening up a new range of design possibilities.



Material specifications
Further information about Boltaron material properties can be found on our website at www.simona-boltaron.com.





MAKE AN IMPRESSION WITH DECORATIVE PRINTS

Customize material with SIMONA Boltaron's Impress Printing™ technologies. Protected decorative images can mimic interior design finishes such as woodgrain, marble and stone.

Utilizing a range of printing techniques, including dye sublimation, digital printing, and screen printing, all of which can be protected with a protective cap.

MATERIAL SELECTION GUIDE

BOLTARON® SHEET PERFORMANCE AND DESIGN OPTIONS

SPECIFICATION	PERFORMANCE	TEXTURES	EFFECT	COLORS	VALUE ADDED
FAR 25.853 (a) (i)	High Heat	Extruded Texture	Metallic	Custom Color Matching With Unlimited Possibilities	Specialized Parts Production
FAR 25.853 (a) (ii)	Lightweight	SD Suede	Pearlescent		
FAR 25.853 (d) (IV)	UV Resistance	CM Coarse Matte	High Gloss	From solid colors to metallics and pearlescents, SIMONA Boltaron can provide a custom color match in as little as 3 days within receipt of the sample.	Technical Thermoforming Support
FAR 25.853 (d) (V)	Chemical Resistance	FT Felt	Medium Gloss		
FMVSS Docket 90A	Scratch Resistance	VH Velour High Gloss	Matte Finish		
ASTM E162	High Traffic	VL Velour	Decorative Print		Design Assistance
ASTM E662	Light Blocking	HC Haircell			
Other Regulatory Requirement	Stain Resistance	LV Levant	CLEAR		SIMONA Boltaron offers hands-on material selection, specification, design, and production support throughout the life cycle of a project or program from concept to installation for the best possible results.
	Recycled	Pressed Texture			
		BN QR SP FR DV	Routed or Formed Part		
		BR RM SI CC LX			
		BF SO TZ CG MP			
		SQ BA AL EC MD			
		DV HY RO PT WR			
		KN TX UB SW MT			
		AD CF AS HT PS			
		VB EL BB IZ RP			
		Custom Texture			

FULL RANGE OF FAR-RATED HIGH IMPACT SHEET FOR AIRCRAFT INTERIOR COMPONENTS

SIMONA Boltaron's knowledgeable team is ready to help with material selection to help you choose the right grade for a specific application or use.

Consult your sales professional for other specialized FAR rated grades.

9000 SERIES

FAR 25.853 (a) and (d) Rated

PRODUCT	SPECIFICATION		GAUGE
	FAR 25.853 (a), (i) & (ii)	FAR 25.853 (d)	in. (mm)
9815E/9815N 65/65	●	●	0.040-0.250 in. (1.02-6.35 mm)
9850/9850N LOW SMOKE 55/55	●	●	0.028-0.250 in. (0.71-6.35 mm)
9200 LIGHT OPACITY	●	●	0.047-0.060 in. (1.20-1.52 mm)
9865 RECYCLED GRADE	●	●	0.040-0.250 in. (1.02-6.35 mm)
4330 HIGH IMPACT	●		0.028-0.250 in. (0.71-6.35 mm)
4205 HIGH TEMP >200°F	●		0.028-0.250 in. (0.71-6.35 mm)
4350 CLEAR	●		0.062-0.250 in. (1.57-6.35 mm)
4800 LOW SMOKE	●		0.040-0.250 in. (1.02-6.35 mm)
4365 RECYCLED GRADE	●		0.028-0.250 in. (0.71-6.35 mm)
4430 OPAL	●		0.028-0.250 in. (0.71-6.35 mm)

4000 SERIES

FAR 25.853 (a) Rated

FORM			DESIGN						
SHEET	FILM	ROUTED PART	PRESSED TEXTURE	EXTRUDED TEXTURE	CLEAR	OPAQUE COLOR	INTEGRAL PEARL EFFECT	INTEGRAL METALLIC EFFECT	DECORATIVE PRINT
●	●		●	●		ANY	●	●	●
●				●		ANY	●		
●				●		CUSTOM			
●			●	●		6 COLOR OPTIONS			●
●			●	●		ANY	●	●	●
●			●	●		CUSTOM			
		●	LIMITED		●	CLEAR BLUE TINT			●
●			●	●		ANY			
●			●	●		6 COLOR OPTIONS			●
●			●	●		ANY	●		

Typical properties are based on laboratory tests conducted on material samples in accordance with standard testing methodology. SIMONA Boltaron makes no express or implied warranty that its products will perform in accordance with the data in all conditions and circumstances. To determine suitability for use, users must test applications under actual operating conditions.

SUPPLYING THERMOPLASTIC MATERIALS FOR THE BUSINESS CLASS SEAT OF THE FUTURE

High Gloss Opaque Formed Trim
Boltaron® 9815 with Protective Cap

Frosted Translucent Printed Privacy Divider
Boltaron® 4350D or 9816D Decorative

Curved Woodgrain Monitor Housing Formed Trim
Boltaron® 9815 Decorative

Pearlescent Textured Headset Frame
Boltaron® 9815 Pearlescent

Metallic Textured Trim and Finish
Boltaron® 9815 Metallic

Woodgrain Tray Table Laminate
Boltaron® 4330 Decorative

Brushed Metal Textured High Gloss Trim
Boltaron® 9815 Metallic

Pearlescent Textured Seat Shell
Boltaron® 9815 Pearlescent



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