

**ELEX** Innovating  
Decorative Boards

# Cleantop® Anti-fingerprint

Super  
MATT surface  
for interior creation

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## Cleantop<sup>®</sup> Anti-fingerprint

ELEX upgrades the normal interior grade of ELEX Compact Laminate (Solid Core Phenolic Sheet) with a special feature of "*clean touch*". The surface is extremely **MATT** that has very low light reflectivity. Meanwhile, it features a very soft touch on the surface, giving a pleasant contact to people.

What is more special? The top is anti-fingerprint.

The innovation of Cleantop<sup>®</sup> brings new ideas and sources for furniture and interior design.

*I love the surface.*



# Technology

## EBC

Thanks to the use of the *Latest* technology---*Electron Beam Curing*, the surface of ELEX Cleantop® is strongly resistant to scratches, abrasion and microbes.

Moreover, It thermally heals any superficial micro-scratches. It is particularly suitable for *Hospitality and Hygiene* sectors that exploited as kitchen counter top, dining table, bathroom cabinet and hospital furniture etc that is made accordance with EN 438 properties.

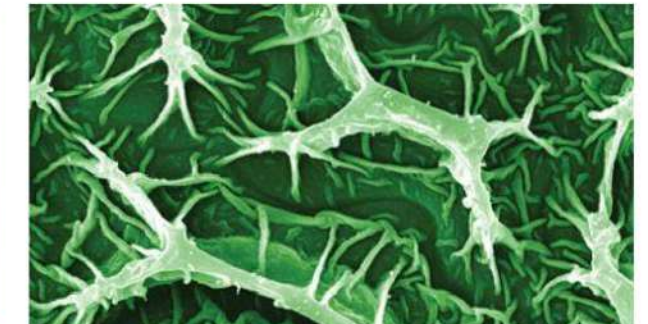
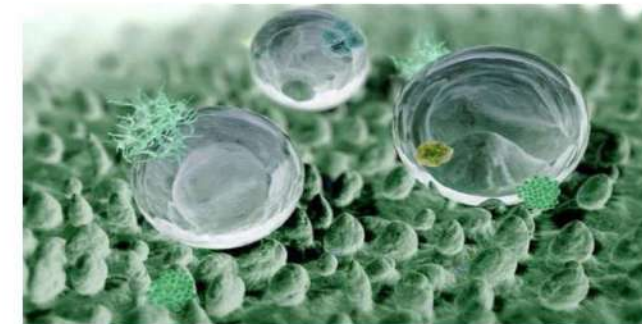


## Lotus Effect

As we know, Lotus plant (also called as "Numlebo Nucifera") has super-hydrophobic surface. Water drops that fall onto them bead up and roll off. These leaves not only stay dry, but the droplets pick up small particles of dirt as they roll, so that the lotus leaves are even self-cleaning.



The lotus is famous for its *Self-Cleaning* feature over other plants.



(Lotus leaf structure under Scanning Electron Microscope)

There are micro- and nanoscopic architecture on the surface of the lotus leaves, which minimizes the water droplet's contact angle ( $>150^\circ$ ) and surface tension.

The Ultra hydrophobicity and self-cleaning properties of the lotus leaf have been synthetically reproduced in industries by scientists to achieve stain resistance, grease removal, and staying clean.



# Feature

- Low light reflectivity, Extremely matt surface
- Thermal healing of micro-scratches
- Anti-fingerprint
- Soft touch
- Resistance to scratches and abrasion
- Resistance to dry heat
- High resistance to acid solvents and household reagents
- Enhanced anti-bacterial properties



 Low light reflectivity  
extremely matt surface

 Impact-proof

 Anti-fingerprint

 Resistant to  
dry heat

 Thermal healing of  
microscratches

 Mold-resistant

 Scratch-proof

 Moisture-proof

 Antistatic

 Excellent intensity  
and colour depth

 Rub resistant

 Soft touch

 Easy to clean

 Hygienic

 Dimensional stability even at  
high temperature changes

 Lightfastness

 High resistant to acid  
solvents and household reagents

 Suitable for contact  
with food

 Self-supporting

 Enhanced anti-bacterial  
properties



## Application

KITCHEN  
HAIR SALON  
BATHROOM  
HOSPITALITY

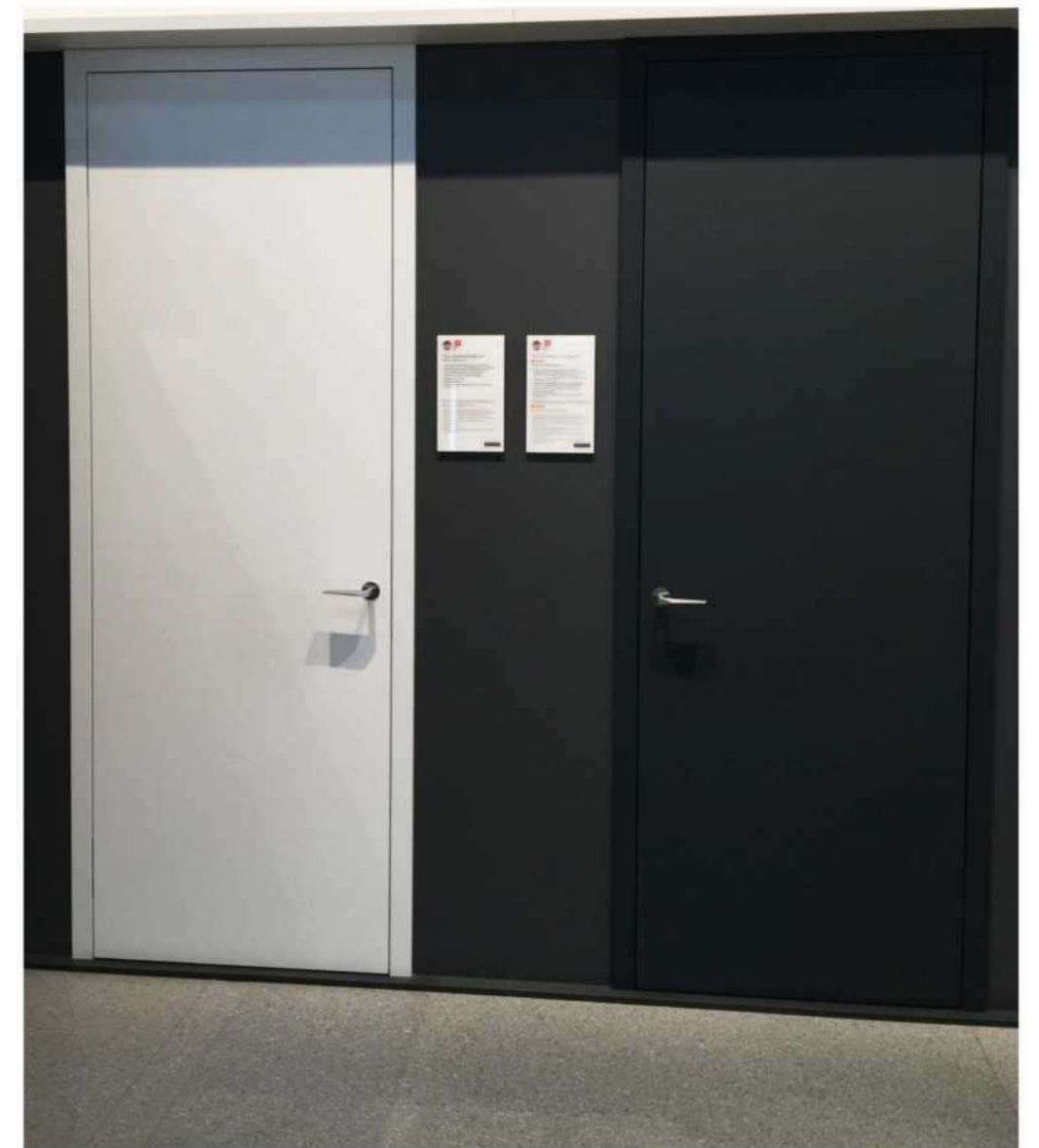






## Application

DOOR  
EXHIBITION





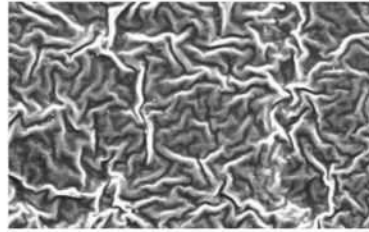
## Application

FURNITURE  
OFFICE

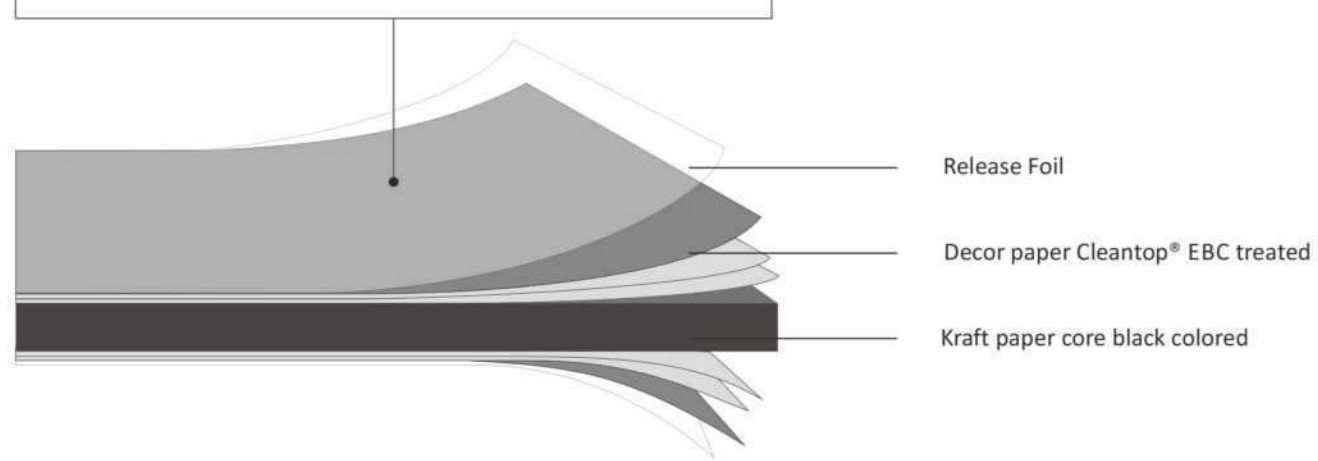


# Specification

## Structure



**Hydrophobic:**  
Sacred lotus leaf grows from mud without getting a single dirt.



## Size (mm)



4'x8'=1220x2440



4.3'x6'=1310x1830



4.3'x10'=1310x3050



4.3'x12'=1310x3660

## Thickness (mm)

Standard 0.7 / 1.0 / 8 / 10 / 12 ( Custom-made available between 0.7-25 )



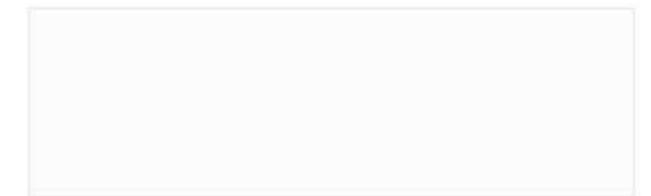
CT-13 Anthracite



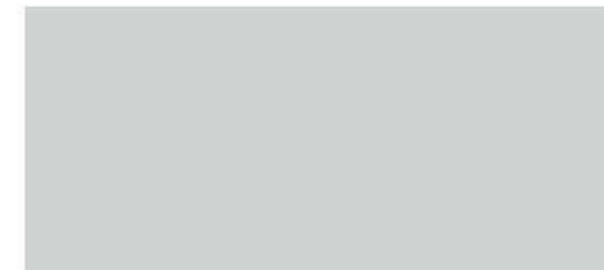
CT-12 Black



CT-14 Beige



CT-27 White



CT-26 Grey

## Color



CT-22 Brown Beige



CT-15 Dark Blue



CT-16 Dark Red



CT-17 Dark Green



CT-18 Pigeon Blue



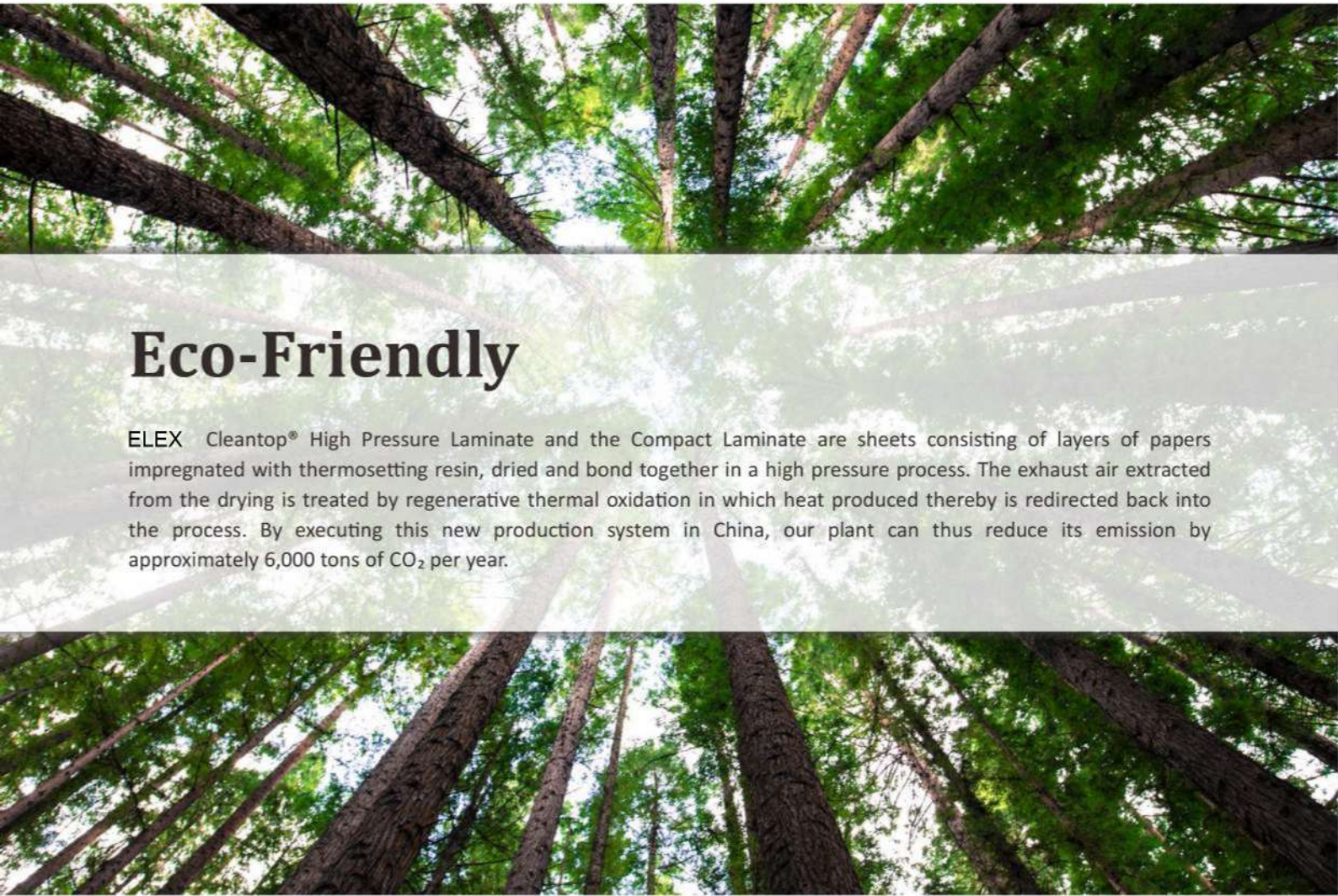
# Testing Standard & result

Properties	Value	Unit	Standard
<b>Specifications, Dimensional Tolerances</b>			
Thickness (mm/max)	2.0 ≤t < 3.0mm : ±0.20mm 3.0 ≤t < 5.0mm : ±0.30mm 5.0 ≤t < 8.0mm : ±0.40mm 8.0 ≤t < 12.0mm : ±0.50mm 12.0 ≤t < 16.0mm : ±0.60mm 16.0 ≤t < 20.0mm : ±0.70mm 20.0 ≤t < 25.0mm : ±0.80mm 25.0mm ≤t : to be agreed between supplier and customer. (T=nominal thickness)		Test method (EN 438-2:2005 Clause no.5)
Flatness (mm/m<max> )	2.0 ≤t < 6.0mm : 8.0mm/m 6.0 ≤t < 10.0mm : 5.0mm/m 10.0mm ≤t : 3.0mm/m (T=nominal thickness)		Test method (EN 438-2:2005 Clause no.9)
<b>Physical Properties</b>			
Density weight	≥1350	kg/m <sup>3</sup>	ISO1183
> Thickness 6mm	8.7	kg/m <sup>2</sup>	ISO1183
> Thickness 8mm	11.6	kg/m <sup>2</sup>	ISO1183
> Thickness 10mm	14.5	kg/m <sup>2</sup>	ISO1183
> Thickness 12mm	17.5	kg/m <sup>2</sup>	ISO1183
<b>Optical Properties</b>			
Immersion in boiling water (100°C water for 2 hours)			
> Mass increase	0.3	%	EN 438-2
> Thickness increase	0.5	%	EN 438-2
> Appearance	4	Rating	EN 438-2
Thermal conductivity	=0.23	W/(m k)	EN 438-2
<b>Mechanical Properties</b>			
Modulus of elasticity	> 10000	Mpa	ISO 178
Flexural strength	≥100	Mpa	ISO 178
Tensile strength	≥70	Mpa	ISO 527-2
Scratch resistance	≥3	Rating	EN 438-2
Resistance to crazing	≥4	Rating	EN 438-2
Face screw-holding	> 5000	N	ISO13894-1:2000
Water vapour permeability	Wet cup:110,dry cup:250	μ	ISO12572
Resistance to cigarette burns	≥3	Rating	EN 438-2
Abrasion Testing	144.5	mg	EN 438-2:10
Impact Resistance	90.4J	MBFE	ASTM D 256-06a
Linear expansion with change in moisture content	0.0065%	/	ASTM D 1037-06a section 24
<b>Fire Classification</b>			
Reaction to fire	Type FR=12mm Euroclass B-s1,d0		EN 13501-1
Factory Production Control (FPC)	ISO9001 / ISO14001 / OHSAS18000		



Properties	Standard	Property Or Attribute	Unit	Values
Release of formaldehyde	EN 717-2	Gas analysis	mg/(m <sup>2</sup> x h)	0.2-0.4
	EN 13986	Formaldehyde emission rating	rating	Class E1
Volatile Organic Chemical Emissions	Greenguard IAQ according to EPA TO-17 and ASTM D 6196 EPA TO-11A and ASTM D 5197	Individual VOCs	TLV	≤ 0.1
		Formaldehyde	ppm	≤ 0.025
		TVOC	mg/m <sup>3</sup>	≤ 0.25
		Total Aldehydes	ppm / ppb	≤ 0.05
Contact with food	EN 1186-3	3% acetic acid 24h at 40°C		< 10
	EN 1186-3	50% ethanol 24h at 40°C	mg/dm <sup>2</sup>	< 10
	EN 1186-14	95% ethanol 24h at 40°C		< 10
	EN 1186-14	isooctane 24h at 40°C		< 10
	EN 13130-23	3% acetic acid 24h at 40°C	mg/kg	< 15
	ISO 17070	PCP		< 0.05
Evaluation of micro-organisms action	JIS Z 2801 / ISO22196:2011	Antimicrobial activity after 24h at 35°C	bacterial viability:	
			- Log reduction	> 2.4
			- reduction %	> 99.9





## Eco-Friendly

ELEX Cleantop® High Pressure Laminate and the Compact Laminate are sheets consisting of layers of papers impregnated with thermosetting resin, dried and bond together in a high pressure process. The exhaust air extracted from the drying is treated by regenerative thermal oxidation in which heat produced thereby is redirected back into the process. By executing this new production system in China, our plant can thus reduce its emission by approximately 6,000 tons of CO<sub>2</sub> per year.

The kraft papers we used are mostly recycled papers (also called “regenerated papers”) which are from waste papers processed into “kraft papers”. Meanwhile, we also use wood-based kraft papers in the raw core to achieve balance of the sheets. We source these raw materials from vendors certified according to the standards of FSC or PEFC. These standards ensure that the recycle content or wood is produced in compliance with international applicable rules for sustainable forestry.

The laminates are cured and chemical inserted. However, the volatile organic compounds emission from the surface and the core are very low due to its bonding production technique. The panels do not contain limited substances that listed in the Candidate of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before 2017.

Chips and shavings produced by processing (cutting and milling) are not hazardous to human health. This also means that waste can even be disposed of thermal without the emission of environmental toxins such as hydrochloric acid, organic chlorine compounds or dioxins. Principally, the waste must be disposed according to specific country laws and regulations.



Certification under apply.

## Design Edge



ELEX Cleantop® offers 10 unique color designs as standard. Meanwhile, ELEX offers also element design service by the Cleantop® using cutting-edge CNC machinery.

*We are able to help you to fulfill your imagination.*



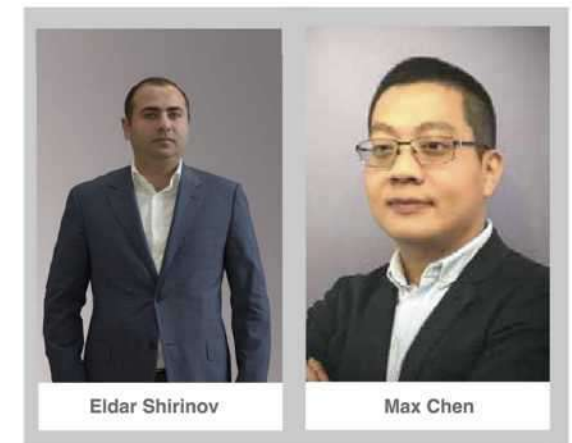




## International Quality

ELEX (ELEX Dis Ticaret Sanayi ve Ticaret Ltd. Sti.) was started in 2015 in Turkey by a pool of specialists from HPL Industries. Even though we were pioneer at that time, now the warehouse system located in Istanbul, Turkey responds to diverse market conditions and maintains a vast inventory of Compact Fiberboards (CDF) within reach of the customers. For these years, ELEX has been selling high-quality, innovative Compact Fiberboard solutions for versatility and demanding environment. ELEX delivers high-performance, high quality panels where state-of-the-art production technologies for both surfacing and solid core are used while meeting and exceeding national and international standards.

*Today we use our knowledge of the wood-based artificial board, to promote the new Compact Fiberboard for more interior creation possibilities. We strive to pursuit continued improvement in the design and quality of sheets.*





# ELEX

## About ELEX

### Innovating Decorative Boards

ELEX (ELEX Dis Ticaret Sanayi ve Ticaret Ltd. Sti.) was founded in 2015 with a simple vision to provide architects, designers, builders and eventually the end users with comfort, reliability and sources of creation.

For the last years, ELEX has been promoting Compact Fiberboards for a wide variety of applications of both interior and exterior as structural and decorative building materials. ELEX wins its honor of high-quality product performance and long-term partnership with its sales networks worldwide.

ELEX works closely with worlds' finest suppliers for the best international quality. It uses up-to-date décor colors, surface textures and cutting-edge production technologies to get the best results of Quality and Innovation. Today, the company keeps on outsourcing new materials for new design concepts, cost effectiveness and ecology. Why to choose ELEX? Because we provide high quality CDFs for the most affordable prices on the market for applications such as retails, hospitality, healthcare, education, office and institutions. Cost-effective longevity that other providers can't match.



SGS

REACH

