



renommé®

- intelligent design



**COMPOSITE
PANELS**

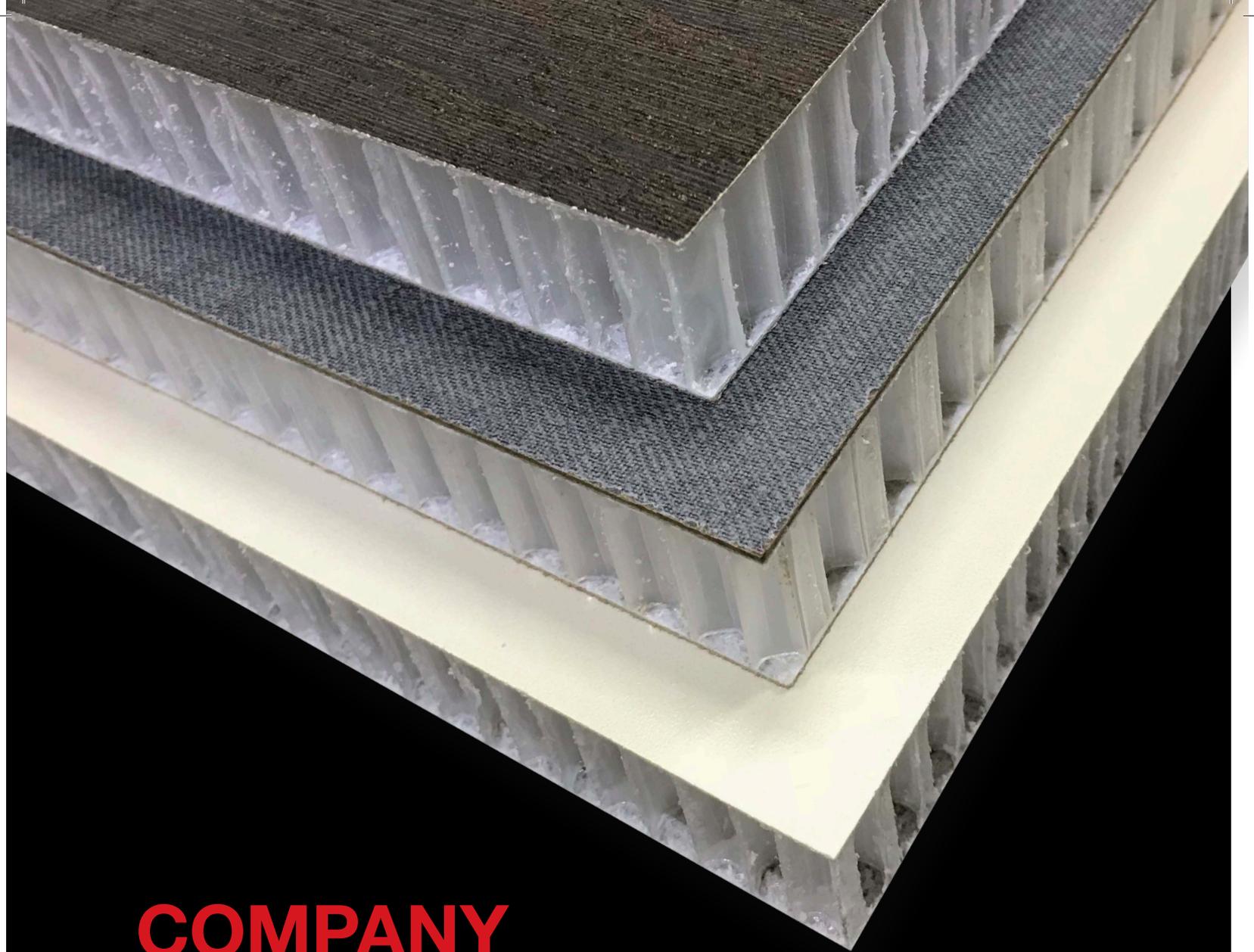


reddot award 2017
winner



www.renomme.com





COMPANY

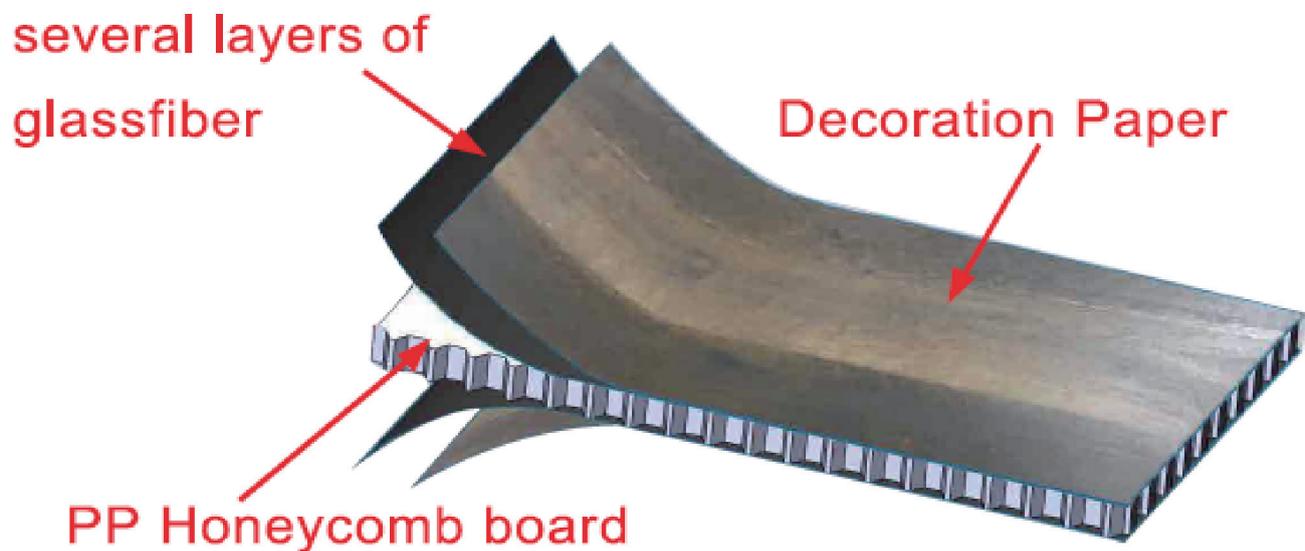
Renommé® composites, located in Denmark, has been producing Renommé® composite panels since 2005. We concentrate on the R&D, producing and marketing of high-performance composite materials. By reason of these excellent features such as lightweight, high compressive strength, waterproof and environmentally friendly, these composite panels are now used worldwide in numerous different fields of applications. With the experience of collaborative works with our clients even custom complete machined parts and finished products made of Renommé® could be supplied.

Furthermore, the composite panel is so special that it also comes with our world-wide patented structure: The PP honeycomb core is covered by several layers of fiberglass with resin, and then baked in oven for around two hours. After forming, a melamine paper surface is added which you can choose any covering such as woods, marbles, concrete or even materials of your choice. Strong and 100% waterproof! It is the ultimate solution for lightweight outdoor constructive material. Let's make new era of outdoor constructive applications together!

We are confident in supporting your specific projects' requirements when optimizing your products and realizing your projects. Please feel free to contact us, we look forward to receiving your inquiries.

PRODUCT DESCRIPTION

Renommé® is a high-tech thermoplastic sandwich panel, with PP honeycomb core and glass woven reinforced PP sheet on the two sides, moreover, also can be attached with abundant of face materials (such as FRP, wood grain sheet, aluminum sheet, stainless steel sheet, marble sheet, rubber sheet etc.) With good properties on light-weight, high compressive strength, environmentally friendly, waterproof, moisture-proof and corrosion resistant etc., Renommé® is widely used in camper vans, logistic trucks, mobile architectures , scaffolding, outdoor furniture, combination houses, home furnishing, industrial products, high-speed trains, aerospace, yachting and high-end packing materials etc.



CERTIFICATES & HONORS

Parts of our honor and Patents:



COMPARISONS OF ADVANTAGES

Compared with corrugated steel plate	Compared with plywood	Compared with FRP/Foaming
Light weight, easy to assemble	Light weight, easy to assemble	Light weight, easy to assemble
High impact force resistance	High impact force resistance	High impact force resistance
Durable (with fiberglass)	Durable (with fiberglass)	Waterproof
Thermal insulation/water-tight	Waterproof, thermal insulation	Resistant to delaminating
Able to carry food	Able to carry food	100% recyclable
Not rust, high corrosion resistance	Environmentally friendly, 100% recycle	Easy to repair
Easy to repair	Resistant to oil and dust	Long operating life
Long operating life	Easy to repair	
	Long operating life	



TECHNICAL FEATURES

LIGHT WEIGHT

Renomme® is remarkably lightweight and of low density due to its honeycomb structure. For example, a truck-body made of Renomme® will greatly improve your payload ratio.

HIGH STRENGTH

Excellent impact resistance, it can resist common physical stress.

EASY TO JOIN AND ASSEMBLE

Panels can easily be joined by screws, bolts, riveting, or gluing and plastic-welding.

WATERPROOF AND MOISTURE PROOF

It is a special property of Renomme®. The material is impervious, resistant to water and is not hygroscopic when the surface is damaged.

RESISTANT TO CLIMATIC CONDITION

Renomme® is a thermoplastic material. Even so, it can be put to use in a temperature range of -40° to $+80^{\circ}$ Celsius.

EXCELLENT CHEMICAL RESISTANCE

Renomme® offers high resistance against oils, salt-water and common chemicals.

VOC/FORMALDEHYDE EMISSION FREE

Renomme® uses certified VOC/Formaldehyde free materials.
Test Method: VDA275:1994

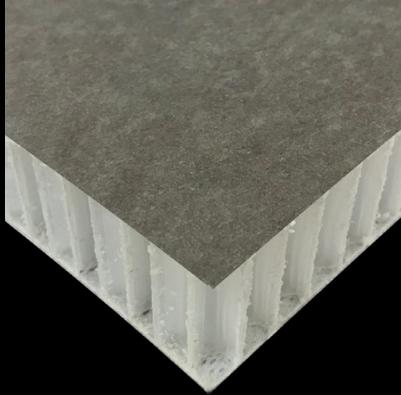
FIREPROOF

Renomme® uses certified fireproof materials.
Test Method: GB8410-2006

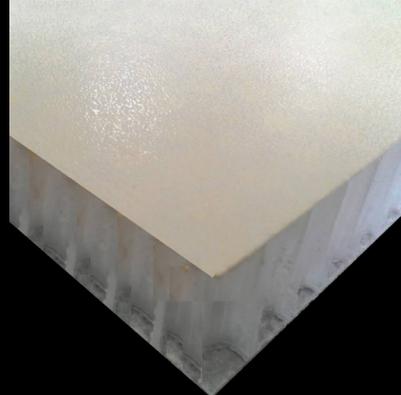


SURFACE QUALITIES

PRE-PAINTED/PRIMERED



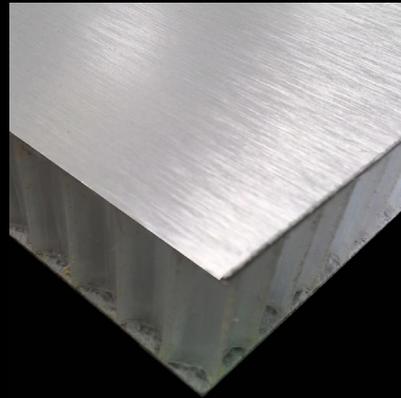
PAINTED PAPER



ANTI-SLIP SURFACE



BRUSHED METAL



ON REQUEST SURFACES



PANEL SPECIFICATIONS

SURFACE COATING

	Type	Details
Optional	Pre-painted/ Primer	Curing Process
	Painted Paper	Curing Process
On request	Anti-Slip-Surface	
	Brushed Metal	Laminate and Prepreg
	Wood Patterns	Wide ranges of decorative surfaces and high pressure laminate, like solids, patterns, and woodgrains
	Other solutions	Durable and easy to maintain
		Solutions for fireproof
		Solutions for fingerprint resistant, anti-microbial, soft touch, thermal healing, and chemical resistant, etc

HONEYCOMB

Type	Material	Weight per volume
Standard	PP-honeycomb	80 or 85 kg/m ³
On request	PP-honeycomb	90 kg/m ³
		100 kg/m ³
		120 kg/m ³



WEIGHT

Renomme® is comprised of two face-sheets and one honeycomb core.
It is 4.4kg/m² or 4.8kg/m² for a 25mm panel or a 30mm panel respectively.

IMPACT STRENGTH

At room temperature, appraised by a Falling Dart Impact Test with a Φ30mm, 8kg, spherical head, height of falling is 300mm. There is no damage for the appearance of sample.

FLATWISE STRENGTH

Test Item	Test Method	Result
Flatwise Tensile Linear Strength	GB/T 1452-2005	0.675MPa
Flatwise Compressive Strength	GB/T 1453-2005	2.32MPa
Plane Shear Strength	GB/T 1455-2005	0.639MPa

STATIC BENDING INTENSITY

Test Method: GB/T 17657-2013

Maximum load: 469N

Static bending intensity: 11.3MPa

*If you can imagine
your unique surface,
we can make it!*

ENVIRONMENTAL FACTOR RESISTANCE

The face-sheets guarantee excellent UV-protection according to the tests.

Renomme[®] has excellent UV resistance without obvious signs of aging phenomenon compared with similar plastic materials which have a stronger tendency to surface cracks at intensive UV-irradiation. Renomme[®] offers high resistance against oil, fats, and the most commonly used chemicals. According to internal tests, the water absorption of the panel is below 1.4%.

THERMAL CONDUCTIVITY

Standard Renomme[®] can be used for thermal insulation materials, as its thermal conductivity is less than 0.12 W/mk at room temperature.

RECYCLABLE

Renomme[®] is 100% recyclable. Renomme[®] is a compound of PP and fiber-glass without other additives, such as adhesives.

TREATMENT

Renomme[®] can be shaped by stock removal or thermal forming, particularly suitable for riveting, welding or gluing.

CHEMICAL RESISTANCE

The below table shows the chemical resistance of the polypropylene surface, and it is just for reference, as the results are subjected to actual parameters and experimental conditions in practical application.



CHEMICAL RESISTANCE

Medium	Resistance	Medium	Resistance
Acetone	4	Hexene	0
Formic acid	4	Cresol	4
Ethyl alcohol	4	Lyes, aqueous	4
Ammonia (aqueous)	4	Methanol	4
Petrol / gasoline	3	Mineral oil / grease	4
Benzene	3	n-Hexane	3
Butane	4	Neopentane	4
Butyl acetate	2	Nitrides, concentrated	1
Butanoic acid 10%	4	Ozone	3
Chlorobenzene	4	Pentane	3
Chloroform	3	Perchloroethylene	2
Cyclohexane	1	Hydrochloric acid 35% max.	3
Cyclohexanone	4	Carbon disulphide	4
Dekaline	1	Sulphuric acid 45% max., cold	3
Dichloromethane	3	Sulphuric acid, hot	1
Diesel / fuel oil	4	Sulphuric acid -gas	1
Diethyl ether	3	Detergents	4
Dioxane	4	Tetra-chlorinated hydrocarbon	2
Acetic acid 10%	4	Tetraline	1
Ethyl acetate	3	Toluene	2
Ethyl benzene	2	Trichlorethane	2
Ethyl chloride	2	Trikresyl phosphate	1
Ethylene oxide	4	Water, cold	5
Fluorocarbon	3	Water, hot	4
Ethyl ether	3	Xylene	2

- 5 highly resistant
- 4 resistant
- 3 conditionally resistant
- 2 not resistant
- 1 very hazardous

This overview refers to the chemical resistance of the polypropylene surfaces. This evaluation is not binding; it is based on bibliographical references. For each specific application the chemical resistance needs to be defined and verified.

TECHNICAL DELIVERY TERMS

PRODUCTION SIZES

Length: 2.000 to 13.600 mm

Width: 2.190 to 2.750 mm

On request pieces cut to smaller custom sizes are available

TOLERANCES

Length	Width	
±2mm	±2mm	In case length \leq 2.750mm
±4mm	±4mm	In case length $>$ 2.750mm \leq 6.800mm
±8mm	±4mm	In case length $>$ 6.800mm

PANEL THICKNESS

	Thickness	Tolerance
Standard	25 and 30 mm	±0.35mm
On request	14 to 50 mm (from 500 m ²)	±0.5mm



FABRICATION

RENOMME® – SIMPLE AND ALL-PURPOSE TO PROCESS

Besides of conventional processing technologies such as cutting, machining, gluing and mechanical joints, Renommé provides further creative processing options.

THERMAL FORMING

Renommé is a thermoplastic composite material and thus entirely appropriate for thermal forming. Easy hot and cold forming capability of Renommé creates large scale weight reductions and enormous fields of applications for finished products.

- Bending
- Edge shaping and closing

FASTENING

Mechanical joints - bolted joints with screws, joints with blind rivets

Fastening by gluing - adhesive bonding to Renommé

Fastening by thermal welding - thermally fused connections

MACHINING

Renommé can easily be machined with standard tools that are also used for processing wood such as circular saws, drills and milling machines, etc.

APPLICATIONS



TRUCK BODY

**CARAVAN
INTERIOR
DESIGN**



CAMPER



**OUTDOOR
FURNITURE**

**DECK
ABOVE
WATER**



**MOBILE
FURNITURE**



YACHTING



**COMBINATION
HOUSE**



**TRANSPORT
BOX**



**YACHTING
INTERIOR
DESIGN**

**PREFAB
HOUSE**



**BATHROOM
WALL
PENELS**

SCAFFOLDING



CONTAINER





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