



Skintec, Thermotec and Pantec

A source of outstanding innovations for
the building and constructions industry





- Producer of very innovative semi-finished thermoplastic composite laminates, Skintec
- Production of property resin located in Germany
- Production of sandwich panels by a very large (3500mm) continuous line in Germany
- Northern European marketing
- Offices in Germany



- Developer, with IQ laminates, of composite parts by innovative processes of thermoforming
- Goes to produce Thermoformed parts, small series, in Italy
- Producer of sandwich panels by discontinuous technology at very high tailoring level
- Southern European marketing
- Offices in Italy

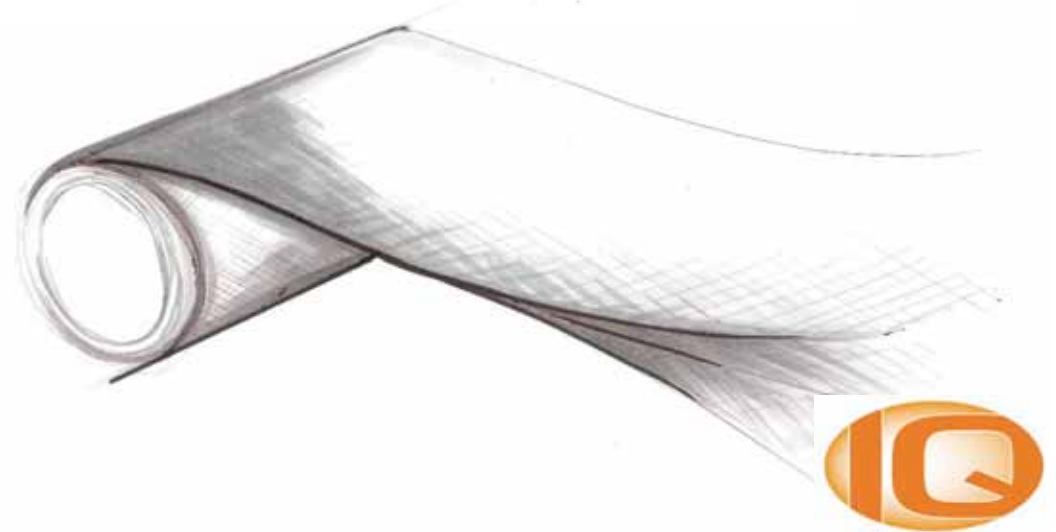
Structura and IQ

- Laboratory at IQ Holding Switzerland
- Integrated group
- Develop together with customers at very innovative projects for the wide application of VOC free composites



SkinTec Laminates

- Novel combination of glass, carbon, basalt, aramid fiber reinforcement with a property thermoformable resin matrix
- Product forms: coils and tailor-made dimensions
- Available width: up to 3,4 meters



SkinTec Laminates

Main advantages:

- Tailor-made fiber reinforcement offers weight reduction combined with superior mechanical performance
- High temperature stable
- Diffusion-stable
- High impact, strength and stiffness performance
- No VOC's
- Environmental friendly



SkinTec Laminates

Main advantages:

- the property resins capability to impregnate by natural capillarity at relatively low pressure allows :
 - The highest % of fiber
 - The natural absence of voids into the matrix
 - No autoclave processing
 - Various customized processes, any of them, at very high productivity and highly cost competitive



SkinTec Glass Fibre:

Overview mechanical properties

		SkinTec – Glass Fibre					
		1274-0	1275-0	1382-0	1385-0	1386-0	1492-0
No. of textile layers		2	2	3	3	3	4
Thickness	mm	0,90	0,93	1,26	1,30	1,34	1,59
Tensile Strength	MPa	165	167	257	250	284	227
Tensile Modulus	GPa	16,2	15,1	18,6	17,6	16,7	16,2

Tests carried out in accordance with ASTM D3039-07.

Glass Fibre = 70% of the total laminate weight



SkinTec : Application areas

- Sandwich panels
- Thermotec
 - For structural thermal insulation
- Pantec
 - For only structural needs



Customized Sandwich Panel Products

Skins and overskins:

- Fiber-reinforced thermoplastic materials (e.g. SkinTec PBT)
- Fiber-reinforced thermoset materials
- Metallic surfaces
- Solid wood
- Marble
- Tiles

Core materials:

- Polyurethane (PU) foam
- Polyester (PET) foam
- Polystyrene (PS) foam
- Polyvinylchlorine (PVC) foam
- Wood
- cured rubber scraps
- Polypropylene honeycomb
- Aluminium honeycomb
- Metal core materials

Significant weight reduction by using hotmelt adhesives.



Panels to the building industry

Remake of a structural flooring



Pantec CF 0/90 2,2 XPS40

3000 x 6850 mm

2 carbon fiber layers 2,2 mm (0,90) at 50% fiber volume content

XPS40 foam core

Weight = abt 7 Kg/m²

Load result : 1500N over 100x100mm, in center of the panel

150 Kpa pressure

Shear stress at edge of load application = 42 Kpa



Panels to the building industry

Thermal insulation walls by **Skintec EP1380W**

Function : Skintec EP 1380W thanks to his structural behaviour, offers the possibility to direct riveting the panel over the foam
With proper rivets we can hit over 120Kg vertical load any rivet

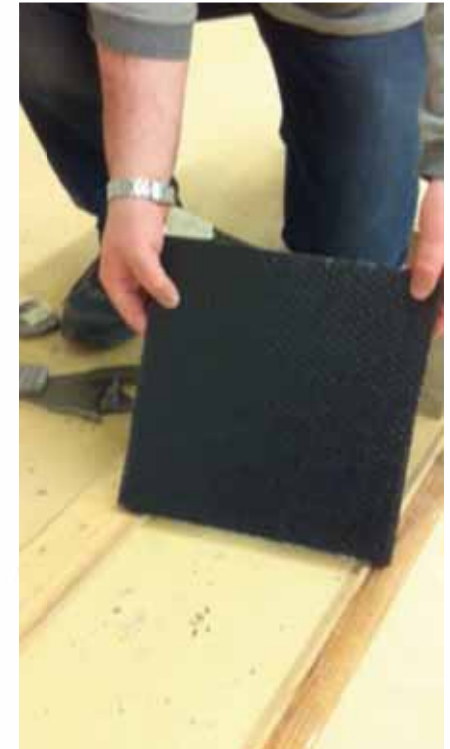
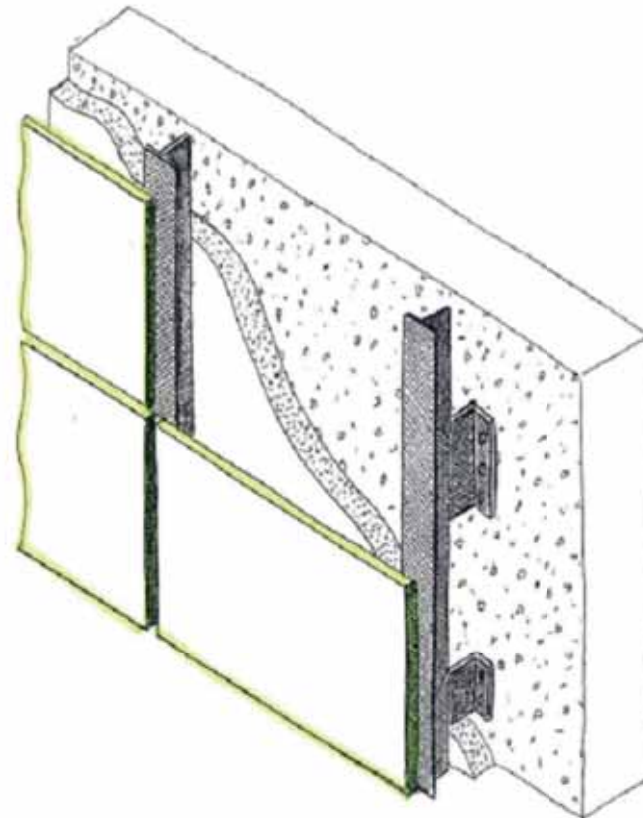


ISC Project



Panels to the building industry

Skintec EP1380 W for ventilated facade and claddings



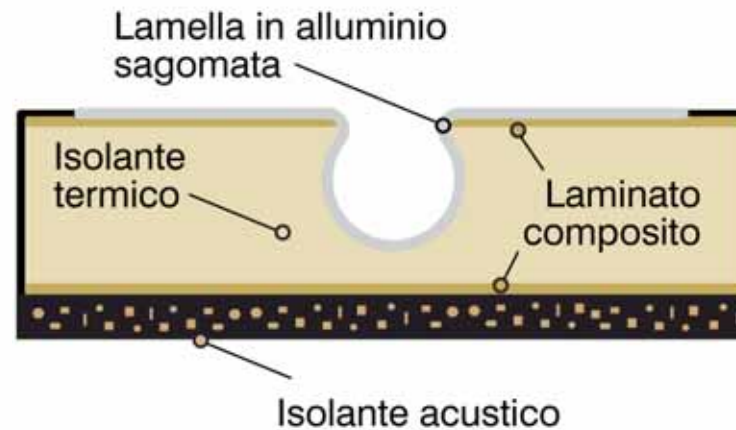
Panels to the building industry

Floor heating panels Thermotec PU35SK1109CR65

FloorTech
riscaldamento a pavimento

24 mm total
26°C water temp
Immediate walk on

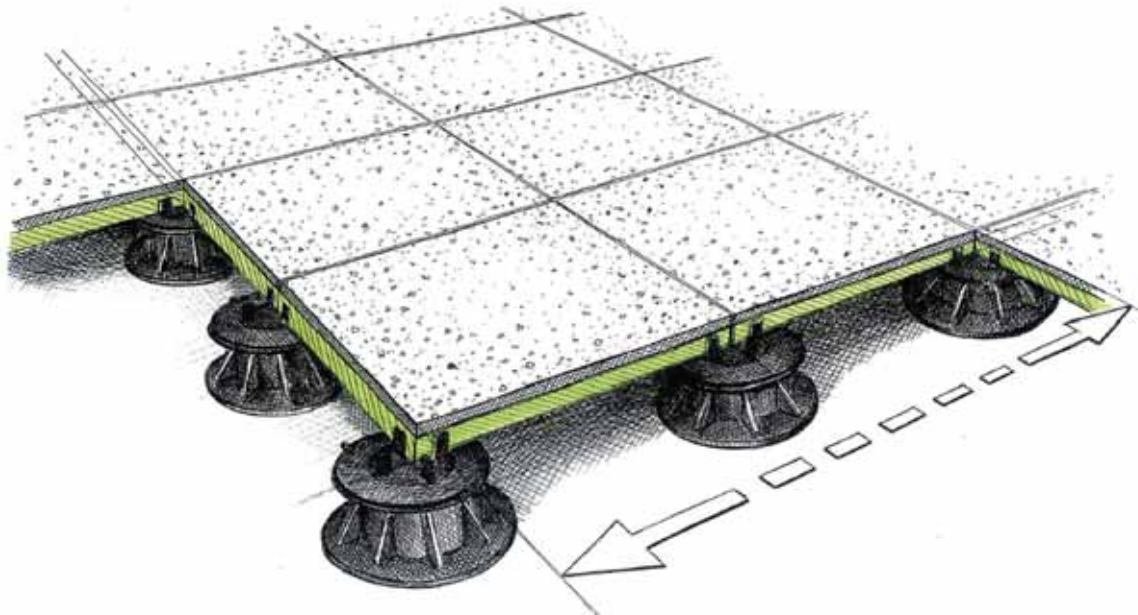
Skintec EP1109
0,3mm thickness



Panels to the building industry

Heavy duty light Pantec panels for floating floors

The structural features of Pantec panels are ideal as structural support for big size ceramic or stone tiles (also very thin). Already tested and developed for outdoor application with load bearing of 2 tons/sm.



Panels to the building industry

Multi energy Solar Panels



Skintec EP 1209W as cells flexible support
Skintec EP 1209W as structural body case
abt 5kg/m2 water included



Panels to the building industry

The Thermotec composite Panels houses

an outstanding application

Panels are the structure

Panels are the thermal and noise insulation

Panels are herthquake resistant

Panels are fire resistant

Panels integrate functions

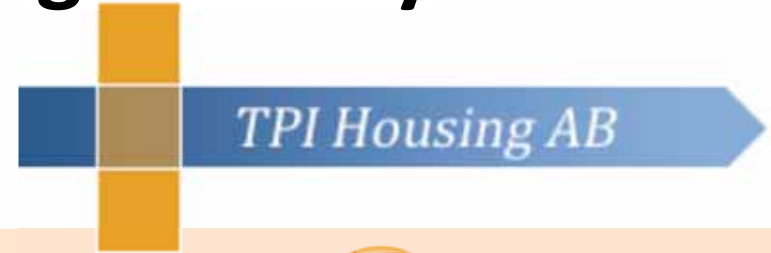
Panels allow any aesthetic surface finishing

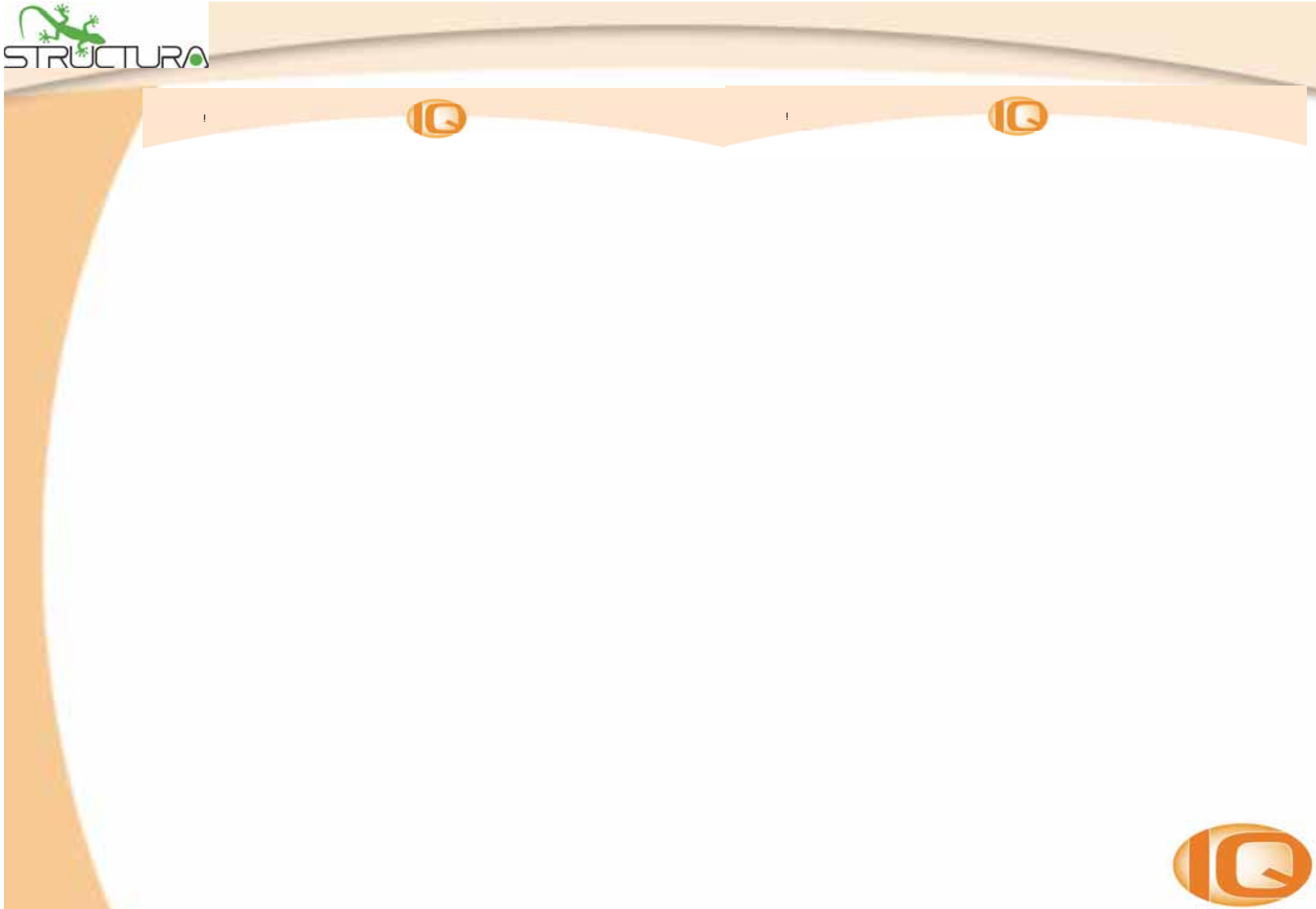
Very low maintenance cost

Very long stable life



Panels to the building industry





Panels to the building industry



Panels to the building industry





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Panels House Conclusions

Skintec composite laminates allow the assembly of Thermotec and Pantec panels

the highest structurality at the lowest weight

the largest possible size, 3400mm wide at any length

any thickness : EPS35 foam grants high insulation

any aesthetic or functional solution

MgSilicate concrete like as a standard

Inside panels cables and pipes ; easy tailoring and changes

capable of integrated functions

Floor panels with floor heating

Roof panels with solar

The best technology to build nice and cheap Energy Passive/Active Green Houses
at the highest ecological standards



Panels to the building industry



Thank you.



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