



Angela Wiegand – Design
München, Germany

www.angela-wiegand.de



Light weight hemp-chair – sustainable chair made of PLA and hemp fleece

Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

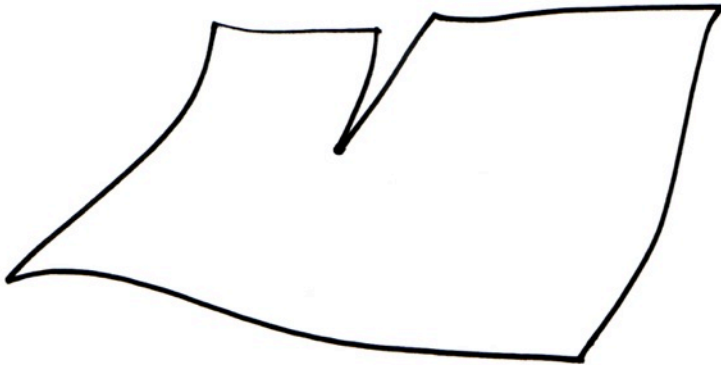
The Design Concept



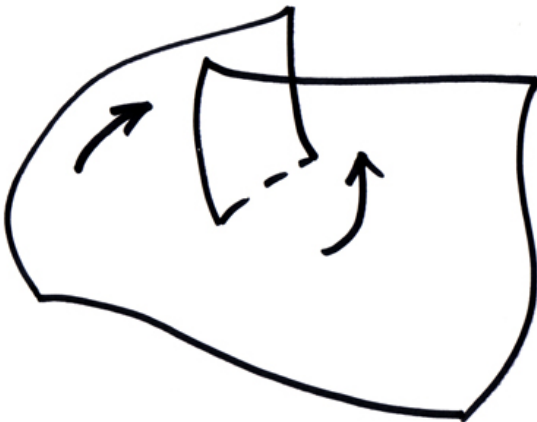
A combination of a small sofa, a Recamière and a wing-chair, that offers a variety of seating positions.



The Design



A „flexible board“, that could be free formed as a seating shell of very thin but stable material.



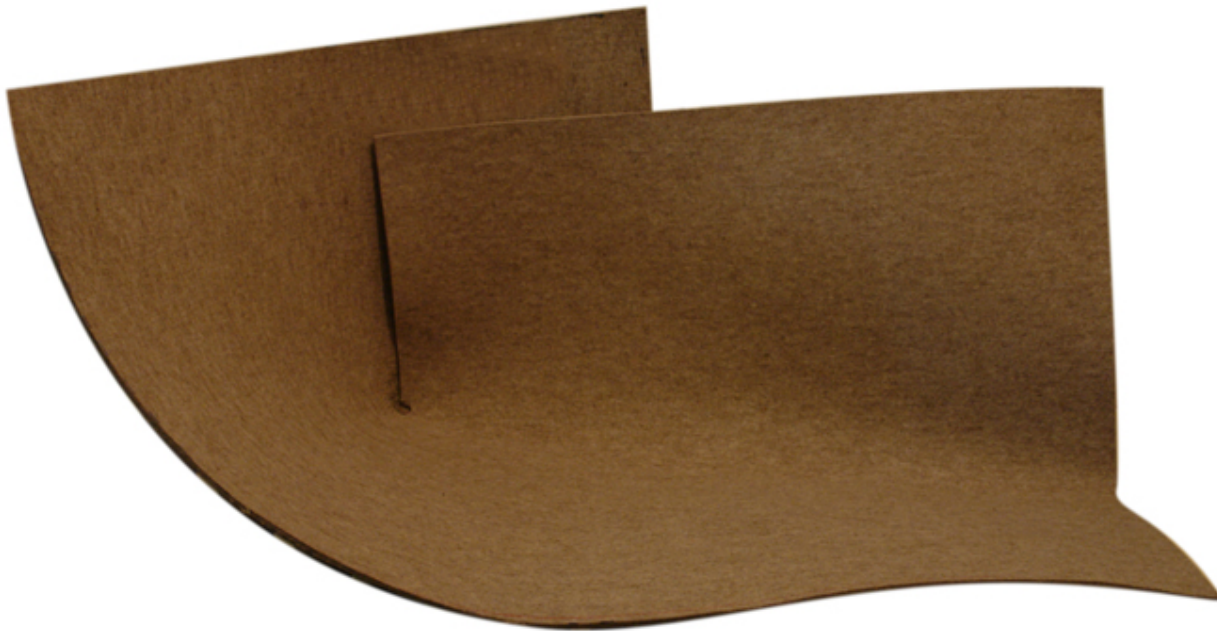
I cut into a fleece on one side and overlapped the shorter piece behind the longer. This way I created a paperbag-like form, which gives it stability.

I gained firmness by form, not by mass.

Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

The Design

A swinging wave-form,
conveying a light-hearted
image.

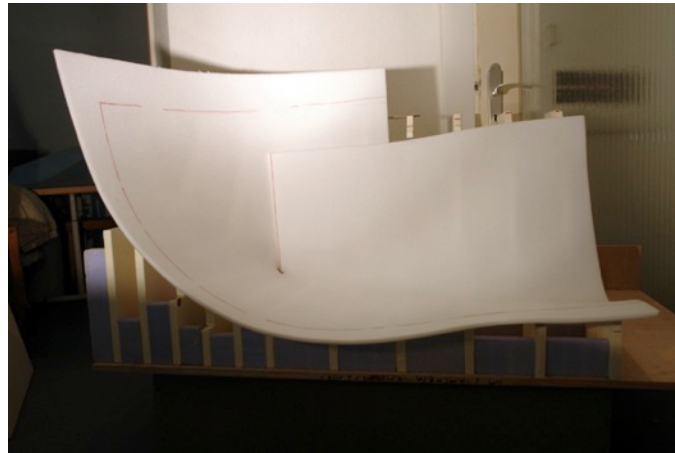
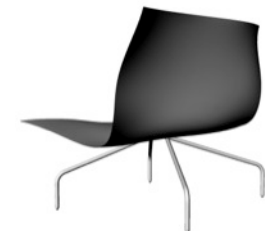


The Prototype

Beispiel: 630, 600 bei 630 mm Tiefe, 600 mm Höhe

Tiefe											
800											
700				630, 600	663, 600	668, 600	665, 600	665, 600	640, 600		
600			548, 600 630		95	116	135	290	510	575	582
500		404, 600 650	467	145	90	72	73	80	122	327	365
400			293	149	99	79	68	65	62	63	70
300		454	250	160	110	90	79	82	81	73	70
200		388	249	174	124	103	88	94	98	94	89
100	155, 600 680	352	255	187	139	110	93	100	108	110	102
0		92, 350	65 259	42 192	28, 148	13, 119	98				
+100								2, 100	6, 112	11, 115	20, 113
	0 -5	75 -4	150 -3	225 -2	300 -1	450 1	600 2	750 3	900 4	1050 5	1200 6
											Breite Spant

We made a framing construction of single slats, defining the shape of the seating-shell



The Prototype



A sandwich structure was used, that consists of decking laces made from hemp fleece and a cardboard - core in a sinus geometry. This geometry of the core - material allows a wide range of spherical forms in sandwich constructions.

The seat and the back of the furniture could be freeformed. The shape follows the seating comfort.

Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

The Prototype

Testing the seating positions and seating comfort



Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

The Prototype



The prototype was used to simulate the final serial hotmelt production process.

Using hemp fleece, we were able to test the qualities of the fibre.

The base was made by hand in a metal shop.

The Upholstery Design



In style, the upholstery can be changed like clothing.

The chair can have summer- or winter-clothes, young and even crazy or elegant and classic.

The design of the piece of furniture suits the taste of very different customers and it can be adapted as their lifestyle changes over the years.

There is no need to buy a new chair.

Longevity and flexibility go hand in hand.

The Upholstery Design



Even the shape of the upholstery can be individually designed.

There is no limit except for the price...



Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

The Upholstery Design



The upholstery version with extra upholstered „underdress“ combined with a blanket that makes it almost like a sleeping bag.



Light weight hemp-chair - sustainable chair made of PLA and hemp fleece

