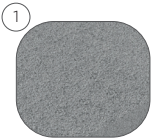


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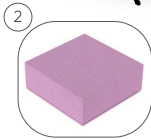
#checklist

Air Cavalli Relax

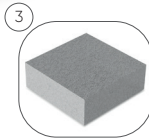
Time to explore the technical specifications of Air Cavalli Relax.



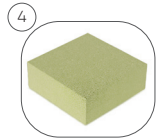
200 gr/m²
Fiber



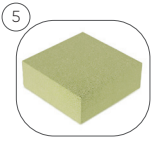
CNC-Cut
25 kg/m³
Super Soft Foam



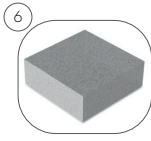
3 cm 26 kg/m³
PU Foam



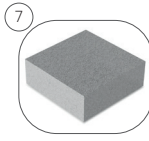
5 cm 35 kg/m³
HR Foam



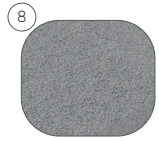
5 cm 25 kg/m³
HYPER Soft Foam



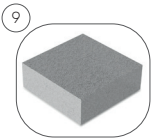
2 cm 26 kg/m³
PU Foam



2 cm 18 kg/m³
PU Foam



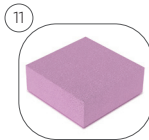
200 gr/m²
Fiber



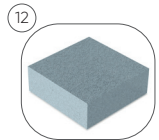
3 cm 26 kg/m³
PU Foam



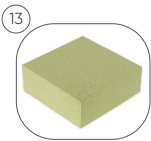
1 cm 60 kg/m³
Felt



5 cm 35 kg/m³
HR Soft Foam



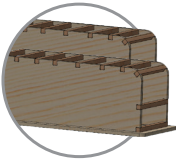
5 cm 45 kg/m³
HLB Foam



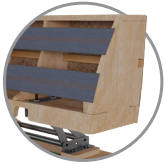
6 cm 35 kg/m³
HR Foam



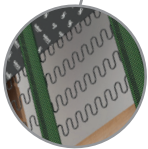
CONSTRUCTION



(Image 1-1)



(Image 1-2)



(Image 1-3)

Plywood, beech wood, and MDF are used in the framework as the main construction of the sofa.

Plywood, a high-strength (36 N/mm²) layered wood material produced in accordance with EN 636 standards, is obtained by aligning wood layers and fibers of around 1.5 mm thickness vertically and pressing with resin followed by cutting in CNC machinery with high precision. (Image 1-1)

Prime quality beech wood boards of 2x2 cm, 5x2 cm, and 7x2.5 cm, kiln-dried and cured for a minimum of 1 year with a relative humidity of 10% or lower are used.

MDF (Medium Density Fiberboard) of 3 mm thickness, a layered material increasing strength is assembled at the back and on the sides of our products to build a box construction.

D3-norm water-based PVAc wood glue with high adhesion strength in accordance with EN 204 standards is used in all joints of wooden components in the framework.

To improve strength and durability, components of the framework are joined by a notched joining system. (Image 1-1) (Image 1-2)

Elastic columns with a maximum interval of 4 cm with an elasticity of 60% and tensile strength of 350 kg as obtained by weaving polyester threads are used around zigzag springs, manufactured in a special heat treatment furnace to provide extra stiffness, and a total of 105 triple rubber fibers with a width by 7 cm to ensure ergonomics and comfort in seating. (Image 1-3)

Plastic materials of various dimensions are used in corners and edges in the framework to reduce rigidity and improve aesthetics after upholstery.

MECHANISM



DSS32-10 backrest mechanism is used in the Air Cavalli Relax model, which provides depth seating and can be converted into a mattress by allowing for the expansion of seating by 31 cm.

Our mechanism is manufactured by using DKP, HRP, and 6220 metal sheet materials of 4 mm, formed by CNC laser machinery with high precision cut and finishing by electrostatic application of textured powder coating.

FOAM

Layered composite foam is used to maximize comfort and durability in seating, backrest, and arms.

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FOAM

Felt made of 100% recycled polyester of 60 kg/m³ (density) and of 1 cm thickness is used as a support unit in the bottom layer of the seating. (Image 2-1)

HR Foam (High Resilience) with a density of 35 kg/m³ is applied as the seating sponge at a thickness of 7+5 cm.

In the top layer, we use a flexible and soft sponge with a thickness of 5 cm and a density of 35 kg/m³ (density) HR Soft quality for comfort.

Rigid foam of 18 kg/m³ (density) and of 2 cm thickness is used as a supporting element in the upper section of the backrest.

Comfort foam with a density of 25 kg/m³ is applied as a soft CNC-cut foam to cover the upper and front parts of the backrest.

For the front part of the back, a soft foam with a thickness of 5 cm and a density of 25 kg/m³ in HYPER Soft quality is applied for comfort.

Prime quality 100% polyester non-woven laminated fiber of 200 g/m² produced by thermal and chemical bonding method is used as the top layer to cover the entire set of seating and backrest.

In order to prevent excessive softening and sinking of the front part of the seats due to intensive use and to enhance the aesthetic appearance of the front fabric, a 5 cm thick, 20 cm wide HLB barrier foam with a density of 45 kg/m³ is applied.



(Image 2-1)

FITTINGS & LOAD-BEARING SYSTEMS

Metal profile joints of 20x30x1.5 mm with electrostatic application of powder coating as finishing are used for legs mounting and connecting the modules with each other.

Laser-cut 8 mm metal legs with electrostatic application of powder coating are used for the support of the Air Cavalli Relax model. The base is equipped with anti-skid plastic covers underneath to prevent any damage to the floor surface.

APPLICATIONS FOR STRENGTH AND DURABILITY

During R&D activities, the products are subject to seating tests for 30,000 seating instances on average. Foam with thickness increased by 30% to 50% and density increased by 20% to 30% is used in the seat cushion of the conventional products of 100 kg.

Recycled material (felt) is used to replace 12% of foam material. Eco-friendly materials with reduced carbon footprint are used.

More than 18% of the product consists of wooden material.

Materials with durability increased by 50% to 100% with a wider surface area and a higher load-bearing capacity are used as fittings.

Factors such as structure, construction, production, shipment, and assembly at home, considering even children jumping on the product, have been thought about carefully throughout the design and production stages up to the finished product.

A stuffing mixture and densely woven linings are used for the back cushion and pillows. The existing stuffing mixture is more durable and comfortable than other conventional fillings.

FABRIC & SEAMS

Fabrics of the manufacturers carrying out production processes in line with international quality standards are used in our sofas.

Each lot of our fabrics is subject to all required physical and chemical testing following the applicable standards, especially including EN ISO 12947-2, EN ISO 13936-2, EN ISO 13937-3, EN ISO 13934-1, EN ISO 14704-1 standards, and fabrics with high Martindale wear (50.000 cycles and above), pile loss (10,000 cycles and above), pilling (5 and above), tear strength (40 N and above) are used.

Average fabric weights are 725 g/m² in the nubuck series, 450 g/m² in the woven series, and 325 g/m² in the velvet series (according to EN 12127).

Number 30, 80 tex low-flexibility, high-strength (5200 cN) lubricated continuous filament polyester threads are used as assembly seam.

Number 20, 135 tex, high-strength (9500 cN) nylon 6.6 threads are used as blind stitches used to improve strength and for aesthetic purposes.

Our sewing threads are certified by Oeko-Tex Standard 100.

To maximize sewing strength, assembly seams are used every 3 mm in length while blind stitches are used every 5 mm in length and 5 mm in width.