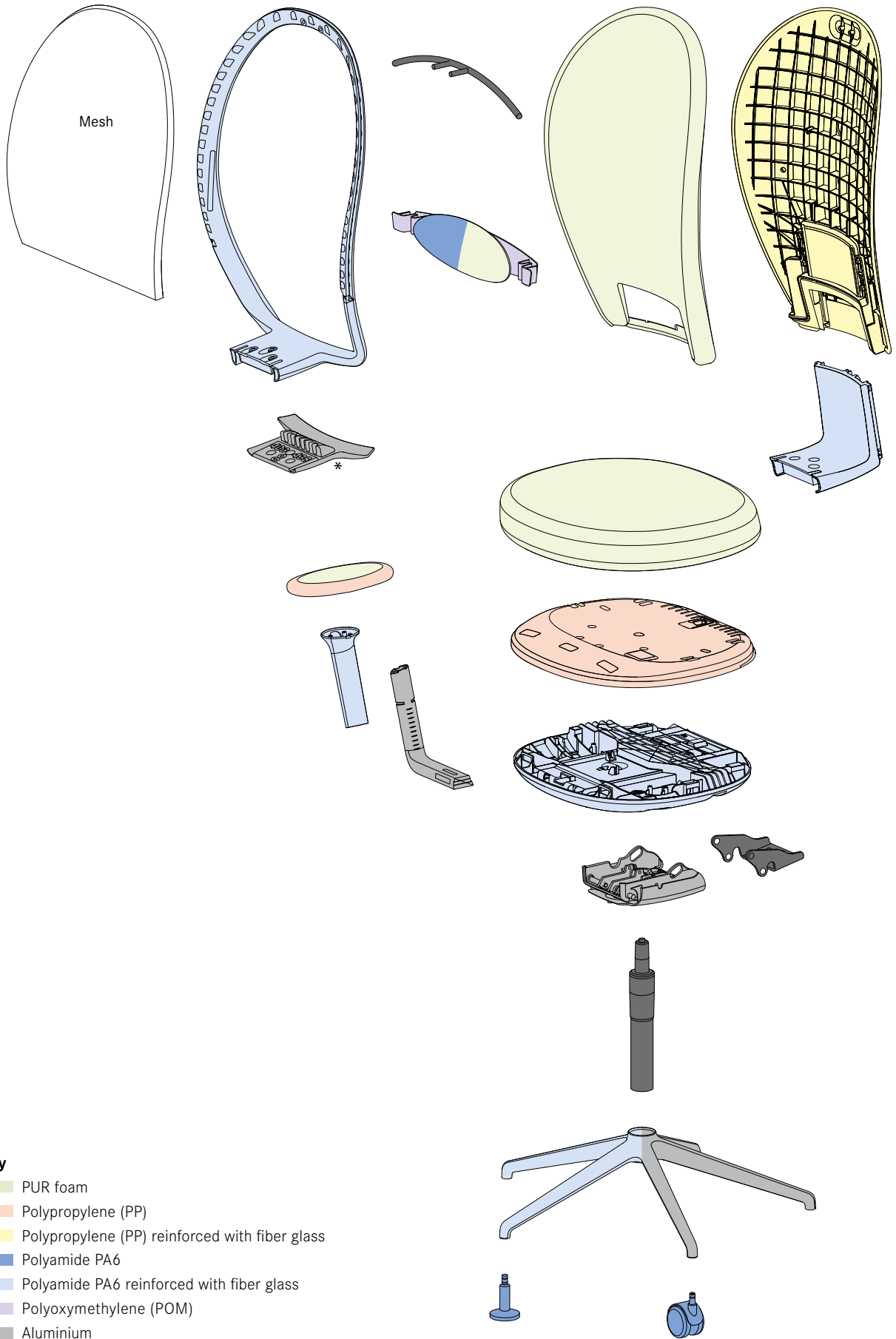




# Material



## Key

- PUR foam
- Polypropylene (PP)
- Polypropylene (PP) reinforced with fiber glass
- Polyamide PA6
- Polyamide PA6 reinforced with fiber glass
- Polyoxymethylene (POM)
- Aluminium
- Steel parts - coated

\* Only with the option "Extended seat depth adjustment to 100 mm"

The way in which Marva Net is constructed allows the chair to be dismantled at the end of its working life in order to recycle most of the parts. A detailed list of the materials used follows:

### **Polyamide (PA6 reinforced with 10–50% fiber glass)**

Properties: The flash point of the material lies at 400 °C. The ignition temperature lies at 450 °C. Thermal decomposition occurs when the part is subjected to a temperature of 350 °C.

Recycling: Yes – the parts can be recycled.

System parts: Clamp lever, armrest slider, covers, sliding seat, five-prong base, back frame, mechanical components

### **Polyamide (PA6/PA6.6)**

Properties: The flash point of the material lies at 400 °C. The ignition temperature lies at 450 °C. Thermal decomposition occurs when the part is subjected to a temperature of 350 °C.

Recycling: Yes – the parts can be recycled.

System parts: Castors, glides, lumbar pad, mechanical components

### **Polyoxymethylene (POM)**

Properties: The flash point of the material lies at 370 °C. The ignition temperature lies at 400 °C. Thermal decomposition occurs when the part is subjected to a temperature of 220 °C.

Recycling: Yes – the parts can be recycled.

System parts: Lumbar support carrier, lumbar support spindle, lumbar support hand wheel

### **Acrylonitrile-Butadiene-Styrene (ABS)**

Properties: The flash point is not applicable. The ignition temperature lies at 330 °C. Thermal decomposition occurs when the part is subjected to a temperature of 300–320 °C.

Recycling: Yes – the parts can be recycled.

System parts: Armrest cap, upholstered shell

### **Polypropylene (PP/PP reinforced with fiber glass)**

Properties: The flash point is not applicable. The ignition temperature lies at 330 °C. Thermal decomposition occurs when the part is subjected to a temperature of 300–320 °C.

Recycling: Yes – the parts can be recycled.

System parts: Backrest of the upholstered version, seat upholstery support

### **Polyester (PES)**

Properties: Polyester fibers are flame-retardant. The bands comply with the Californian TB117 fire safety norm. Cutaneous tolerance of the material is good.

Recycling: Yes, when dry the adhesive can be processed along with the glued materials to produce filling material.

System parts: Mesh, lumbar support cover

### **PUR foam**

Properties: All PUR foam parts (polyurethane) in versions made of cold cured foam or integral foam are produced without any CFCs and are created by means of a polyaddition reaction of isocyanate and polyether polyol. This results in cellular material with elastic properties. Thermal decomposition takes place at a temperature of over 180 °C, and the ignition temperature is between 315 °C and 370 °C.

Recycling: Yes, the parts can be sent for either materials or thermal recycling.

System parts: Armrest cushion, seat cushion, back cushion, lumbar support cushion

### **Steel parts**

Properties: The parts are of very high strength with regard to breakage, traction, torsion and bending. The level of strength is higher or lower, depending on the quality grade. The parts are corrosionresistant after electroplating. Thermal decomposition occurs when the part is subjected to a temperature of 1100 °C.

Recycling: Yes – the parts can be recycled.

System parts: Bolts, springs, washers, screws

### **Steel parts – coated (resin)**

Properties: The parts are of very high strength with regard to breakage, traction, torsion and bending. The level of strength is higher or lower, depending on the quality grade. The parts are corrosionresistant after electroplating. Epoxy resin powder is used to coat the parts. Thermal decomposition occurs when the part is subjected to a temperature of 1100 °C.

Recycling: Yes – the parts can be recycled.

System parts: Coat hanger, screws, washers, height column, counterweight, mechanical components

### **Aluminium (pressure die casting) coated and polished**

Properties: The alloy corresponds to the DIN 1725 standard. Aluminium die casting has a high level of strength, is easily shaped and offers several finishing methods. There are different polishing levels as well as different epoxy resin powder coatings in an extensive range of colours.

Recycling: Yes – the parts can be recycled.

System parts: Mechanism, five-prong base, armrest support

### **Cover materials**

Properties: Detailed information on the composition of materials can be found on the respective fabric and leather cards.

Recycling: Yes – some of the unblended cover fabrics made from natural fibers can be returned to the suppliers. There, the covers are shredded and reused to produce new fabric. Cover fabrics made from synthetic materials can be recycled. The methods used to tan and dye the leather covers allow them to be composted without problem.

System parts: Cloth and leather covers, woven polyester/mesh

### **Additional information – connections**

Marva Net is made from a large number of single parts. The parts are all mechanically joined (= can be dismantled, detached). These plug-in and screw connections allow the different types of material to be separated when the chair is dismantled.

Exception: The PU soft foam padding of the armrests is foamed together with its shell.

### **Additional information – material identification**

The larger parts made of Polypropylene (PP), Polyamide (PA), Polyoxymethylene (POM) and Acrylonitrile-Butadiene-Styrene (ABS) are marked with the respective material identification code for recycling.

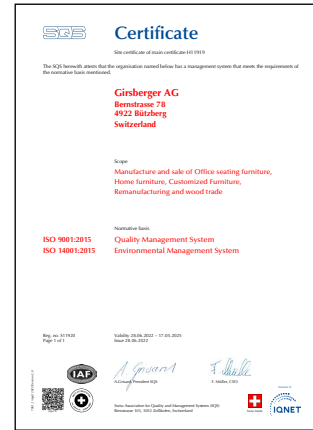
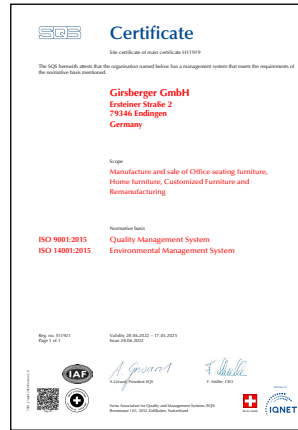
# Certificates

## Quality

Girsberger has extremely high quality assurance standards and is certified according to DIN EN ISO 9001.

## Environment

Since 2007, Girsberger has operated an environmental management system certified to the EN ISO 14001 standard, which obliges us to continually improve our environmental performance. All materials used for the Marva Net model series can be sorted into material types and recycled.



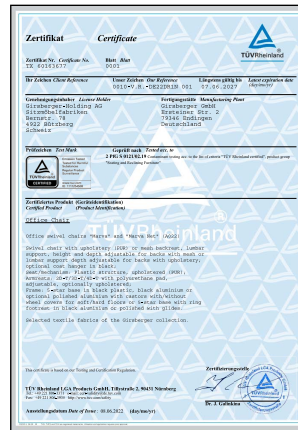
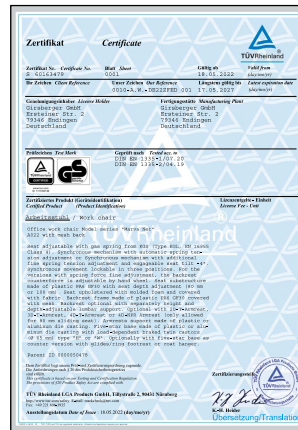
## Functionality and safety

The design of the products in the Marva Net model series conforms with the following standards:

EN 1335  
NPR 1813

The safety of the Marva Net product series has been tested and confirmed by TÜV LGA with the issue of the GS («safety approved») certificate.

Moreover, TÜV LGA has issued its «ergonomics approved» and LGA «tested for hazardous substances» certificates for the Marva Net.



## Design

In 2021, Girsberger won the red dot award for the design of the Marva Net chair.



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