



## Material



### Key

- PUR foam
- Polypropylene (PP)
- Polypropylene (PP) reinforced with fiber glass
- Polyamide PA6
- Aluminium
- Steel parts - coated
- MDF
- Wood (oak)

## Materials

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The way in which Nava 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/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: Glides

### **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: Connecting plate, 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: Screws, washers, four-legged frame, skid-frame chair, struts, coupling element

### **Aluminium (pressure die casting) coated and chromium-plated**

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: Armrests

### **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: Seat cushion, full upholstery foam

### **Polypropylene (PP)**

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: Stacking aids

### **Polypropylene (PP reinforced with 30% 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: Seat shell

### **MDF (medium-density fibreboard)**

Properties: Fibreboard materials are made from waste wood that has been broken down into fine wood fibres. Bonding agents, high pressure and heat are used to press these into boards or formed parts.

The raw materials usually come from coniferous trees such as spruce, fir or pine. Fibreboard materials have a uniform composition and a dense fibre structure. They are highly resistant to breakage and bending and have an equal degree of shrinkage in all directions. The boards or formed components have a smooth, dense, fine surface.

Recycling: Yes – the parts can be recycled.

System parts: Upholstery support

### **Wood (European oak)**

Properties: This light to mid-brown, ring-porous wood is clearly structured with large rays. Oak woods are usually easy to stain, matt, varnish and paint with any medium.

We use oak with lightening varnish, black-stained oak and walnut-stained oak.

Recycling: Yes – the parts can be recycled.

System parts: Wooden frames

### **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

### **Additional information – connections**

Nava 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.

