

# Joyn Single Bench

Design: Ronan & Erwan Bouroullec



## SUSTAINABILITY

For Vitra, environmental, economic and social conduct begin with the individual. In order to develop, manufacture and market dependably long-lasting and environmentally sound products, Vitra complements this key factor of individual initiative with regular audits of the company's standards by independent review entities.

## VITRA AND THE ENVIRONMENT

Vitra has manufactured furniture designs by Charles & Ray Eames and George Nelson since 1957. Building on this foundation over the years, the company has developed a wide range of furnishings for the office, for the home and for public spaces in collaboration with progressive designers.

Since 1997 Vitra has implemented a certified system for quality and environmental management according to the standards of **DIN EN ISO 9001** and **DIN EN ISO 14001**. Vitra is committed on all levels to reducing the use of

energy, raw materials and other resources – thereby reducing the environmental impact caused by emissions, waste water and waste materials. The most important contribution of Vitra to environmental sustainability, however, is the high quality and enduring design of its long-lasting products. The unusually long life cycle of Vitra products is ensured by aesthetics that do not follow temporary trends and fashions, and also by a careful selection of materials and the use of innovative technologies. The longevity of Vitra products is increased by the replaceability of wearing parts.

Trucks are to leave Vitra production sites preferably with a full load; the use of returnable packaging is being constantly increased. Preference is given to rail transport; overseas cargo is sent by ship and special transport is avoided. Vitra uses environmentally friendly materials for packaging and minimizes the volume of packaged products to make efficient use of the loading space in truck trailers and shipping containers.

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## MATERIALS

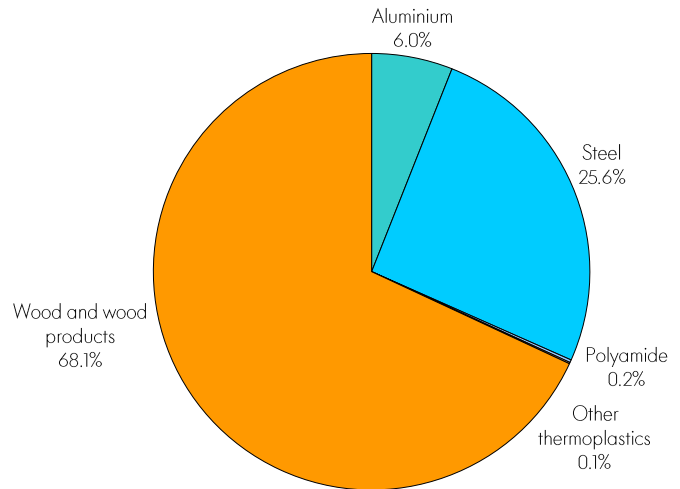
**Aluminium** is light and durable. Die-cast aluminium components by Vitra are principally made out of remelted alloys which are largely recycled material. When remelting recycled aluminium there is an energy saving of 94% compared to the production of primary aluminium. Aluminium components are 100% recyclable.

**Steel** is a stable compound of iron and carbon with various added alloys. As the technical properties such as strength and elasticity can be adjusted according to the steel grade, the material can be used flexibly in many different forms. At the end of the product life cycle, steel components can be melted down and completely recycled.

**Polyamide** is a very strong thermoplastic synthetic material. With the addition of a small amount of new material, polyamide can be 100% recycled. In order to facilitate single-variety separation and recycling, all plastic components that are large enough are labelled according to ISO 11469:2000.

**Other thermoplastics** are used for special applications. Vitra principally prefers thermoplastic to duroplastic synthetics, as with the addition of a small amount of new material, they are 100% recyclable. In order to facilitate single-variety separation and recycling, all plastic components that are large enough are labelled according to ISO 11469:2000.

**Wood and wood products:** Wood is a renewable, natural raw material. Wood products like chipboard and MDF have the advantage that they can be processed more easily and flexibly than wood and do not deform at different moisture levels like solid wood. In the production of wood products we partly also use surplus wood from the wood industry and thus help preserve valuable resources. All the wood products used by Vitra satisfy the emission category E1 and therefore emit less than 0.1 ppm formaldehyde.



Joyn Single Bench / 240x120 oak veneer

## RECYCLING, PACKAGING AND REUSE OF PRODUCTS

Once a product reaches the end of its life cycle, it must be disposed of.

### Recyclability:

Joyn Single Bench is 32% recyclable when fully separated. Vitra understands the term recyclability to signify only melting down and reuse of raw materials. Polyurethane and wood products, for example, cannot be melted down. However, these materials can be used thermally to generate energy or can be crushed and recycled as materials.

### Proportion of recycled material:

Joyn Single Bench contains 39% recycled material. Using recycled materials conserves valuable resources. With their proportion of recycled material, among other things, Vitra products can contribute to a good rating in certification programs for sustainable buildings (for example LEED). We will be happy to assist you should you require more information on this subject.

### Certificate:

**GREENGUARD GOLD Indoor Air Quality Certified**