

Blauer Engel (“Blue Angel”).

Environmental characteristics of ASSMANN products.

ASSMANN Büromöbel products have received the Blue Angel eco-label in accordance with RAL-UZ 38. This eco-label is granted to products which are especially low in emissions. All components going into the product are evaluated before the label is awarded. This ensures that ASSMANN products as a whole are healthy and ecological.

The substances used are summarized in the following list.

1. Type of wood used and forest management

Wood is the primary component of chipboard. ASSMANN procures the chipboard from three suppliers whose production is in Germany. They all guarantee that the wood they use comes exclusively from domestic, renewable forests.

2. Type and content of wood

Our suppliers guarantee that their chipboard contains no isocyanates. The types of wood used are subjected to a stringent receiving inspection to check for organic halogen compounds, in particular pentachlorophenol (PCP) and PVC.

Chipboard contains small amounts of formaldehyde. It can appear in volatile and chemically bound form. It is not possible to obtain data on the proportion of chemically bound formaldehyde, because the natural content of native formaldehyde varies tremendously depending on the kind of wood used. However, bound formaldehyde is not expected to have any effects on the environment whatsoever.

Volatile formaldehyde, i. e. in a form capable of producing emissions, is described in Section 21.

3. Wood preservatives

Our suppliers guarantee that their chipboard contains no wood preservatives.

4. Other synthetic materials

ASSMANN office products contain the following synthetic materials:

- PA6 and PA6 with bound fiberglass
- PE
- PP
- ABS

All parts made of synthetic materials are marked according to their type of material. Only very small parts which cannot be marked because of lack of space remain unmarked.

Polypropylene PP is used as edging, glued to the wood-based materials.

5. Adhesives

Adhesives are used to glue chipboard together and glue veneer to chipboard. Our chipboard suppliers guarantee the following product properties:

- The type of adhesive is aminoplast
- The chipboard contains neither wood preservatives, isocyanates, heavy metals nor chlorides other than those naturally found in the wood.
- Paraffin is the only hydrophobing agent used.
- No ingredients other than those mentioned above.

Our glue supplier guarantees the following product properties:

- The glue contains no heavy metals
- No isocyanates
- A maximum of 30 ppm of formaldehyde
- Formaldehyde emissions are discussed in Section 21.

6. Textiles

No textiles are used in products made by ASSMANN.

7. Removable textiles

No textiles are used in products made by ASSMANN.

8. Leather

No leather is used in products made by ASSMANN.

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9. Finishes

Products made by ASSMANN contain no liquid coating systems; instead, powder coating is used for metal parts.

Our powder coating suppliers ensure the following:

- The powder coatings are not required to be marked as hazardous material
- The powder coatings contain no chronically harmful ingredients
- The powder coatings exhibit no emission of volatile organic compounds after baking
- The color pigments are free of lead, cadmium, chrome V1 or other toxic metals

Our suppliers of powdered purchased parts guarantee the above-mentioned product properties.

10. Aluminium

ASSMANN BÜROMÖBEL only uses aluminum where no other material is available. The proportion of aluminum is therefore negligible.

11. Types of metal

Our frames are made exclusively of steel. A few structural parts are made of zinc die-casting.

We require our steel suppliers to supply us with steel devoid of heavy metal components.

Any nickel components, and thus possible allergens, in the steel are insulated by the covering coat of powder.

Surface finish of steel

Our metal parts are primarily powder coated, but customers can also receive specific elements (such as table legs or handles) with chrome plating. Chrome is still the best way to make surfaces scratchproof and impact-proof. Chrome-plating is only used on visible elements, all other parts are powder coated.

The metal parts are powder coated by external suppliers.

The waste water produced by cleaning the metal parts is purified with strict monitoring of the limit values or recycled. Here we also adhere to workplace limit values.

The chrome-plated parts are made strictly according to legal regulations and in compliance with the limit values. This is guaranteed by our suppliers.

12. Foamed materials

No foamed materials are used in our furniture.

13. Recycling

A comprehensive, quantifiable statement on the proportion of ASSMANN products made of recycled material is currently in preparation. So far, only approximations and statements related to the types of material can be made:

Chipboard:

According to the German Office of the Environment, chipboard is considered a “quasi-recycling material”. Our supplier estimates the proportion of chipboard made of breakage, used wood and recycled chipboard to be very large. Exact data on the precise proportion in our products are not currently available.

Steel parts:

Steel can be completely recycled. Our suppliers estimate the proportion of recycled steel as being very large. Exact data on the precise proportion of scrap iron in our products are not currently available.

Synthetic materials:

The proportion of recycled synthetic materials is at present still very small. This depends primarily on the grade purity of the used synthetic materials. At present, a wide variety of recyclates is available on the market, not all are suitable for synthetic parts which must meet stringent requirements for a long service life. Wherever possible, ASSMANN stipulates that suppliers should use recyclates. The exact proportion of recyclates in our products is not currently quantifiable.

Nearly all ASSMANN products with synthetic materials are identified as such. ASSMANN thus helps enable a high level of grade purity to increase the proportion of recyclates in manufacturing parts made of synthetic materials.

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14. Flame proofing

ASSMANN products and components are not provided with chemical flame proofing.

15. Material coding

All parts made of synthetic materials are coded according to their type of material. Obviously identifiable materials, such as chipboard and steel, are not additionally marked.

Variety of materials

A general statement on the number of different materials is difficult to make owing to the many different variations of ASSMANN products. The following statement can be made when the materials are divided into pure grade and separated for recycling:

- Wood as worktop and furniture carcass
- Steel as frame
- Approx. four different synthetic materials which can be separated in pure grades
- Zinc die-casting for foot caps, swivel joints, hinges, etc.

These data may vary depending on the model and design.

16. Bonding

All ASSMANN products are free of rivet joints, sewing, welding, compression and adhesive bonds between different materials. There are clear development guidelines for this. No special tools are necessary to separate the various materials (plug and screw connections).

17. Service life

The average useful life of ASSMANN products is set at about fifteen years. Certain materials are less important for determining the useful life. Within a period of fifteen years, office environments can be expected to change so dramatically that the furniture will in all probability be replaced regardless of how long its materials last.

The physical service life of ASSMANN products can be much

longer if they are taken care of. One of ASSMANN's design principles is to manufacture the products parts so that they have a minimum service life of fifteen years. There are clear development guidelines for this.

18. Replacement of parts

Fitters, specialised dealers or even laypeople who are good with their hands can easily replace damaged furniture parts without any special tools.

19. Spare parts

Spare parts are available as long as a model is produced. Furthermore, ASSMANN makes sure that spare parts can be supplied for the duration of the expected service life.

20. Modular structure

In order to increase the furniture's service life, all products have a modular structure. As a rule, it is possible to upgrade from the simplest version to the top model. Converting and adding to the furniture present no problem.

21. Residual emissions

No furniture can be guaranteed to be absolutely emission-free. Even natural, untreated wood emits formaldehyde, for instance. ASSMANN is aware of possible sources of emissions. These are regularly examined.

Solvent emissions

Solvents play no part in the offered furniture since no solvents are used.

Formaldehyde emissions

The effects of formaldehyde emissions were recognised by ASSMANN early on. All materials which can emit formaldehyde were examined and replaced by materials with the lowest possible emission values.

Chipboard: ASSMANN procures its chipboard from several suppliers.

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	Regular control measurements by external laboratories ensure that the limit values for formaldehyde emissions are not exceeded.
Finish:	There are no liquid coating systems in the offered products.
Glue:	The formaldehyde content of our glues is approx. 30 mg/kg. At present, there is an ongoing discussion about marking formaldehyde contents less than 50 mg/kg as free of formaldehyde.

We will be happy to answer any questions you may have.

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22. Reusing furniture parts

At present, materials are only planned to be recycled from returned steel and parts made of synthetic materials. In view of the current specifications, widespread material recycling of used chipboard does not seem ecologically or economically reasonable.

23. Packaging

ASSMANN does not use disposal packaging for 90 % of all the products it supplies. This furniture is packed in covers which are returned after delivery.

The remaining furniture systems require additional coverings. This packaging consists exclusively of cardboard and PE bubble pack.

There are clear recycling concepts for ASSMANN packages in accordance with current packaging regulations.

24. Means of transport

ASSMANN uses its own trucks almost exclusively to deliver the products. The vehicles are constantly kept up to the latest standards.

Products are shipped overseas by rail, ship and air cargo.