

HAGS

GENERAL INFORMATION



MATERIALS

In order to meet the stringent standards we set for safety, durability, finish and functional performance, the materials we use are of the highest quality. Plywood is treated to withstand outdoor conditions. HPL (High Pressure Laminate) is the obvious choice for boards where requirements are extra high. Our timber is slow-growing, fine-ringed pine from northern Sweden. It is certified according to FSC or PEFC. The timber is planed and the edges rounded.

Sand boxes are made of oak. Bolt-heads and nuts are fitted with HAGS plastic covering caps to protect fittings from vandalism. Nets etc. are made of hot-galvanised chain covered with solid polyurethane to ensure maximum durability and minimal sensitivity to changes in temperature. The stainless steel pattern-rolled plate used in the slide chutes ensures a long life and minimal friction. Bolt joints are galvanised to protect against rusting. Posts and metal parts are made of high-tensile steel.

TIMBER PRESERVATION

HAGS has during the years developed a well adapted technique for timber protection:

First of all we design all wood components to be well drained or protected in order to avoid high levels of moisture. Secondly, all wood components are placed at a minimum of 70 mm above ground in order to avoid direct contact to soil, and by doing so we can use a soft and mild impregnation.

Finally the wood is vacuum impregnated conforming to the standards EN 351 class P5. The impregnation, containing biological degradable active and non-metal solvent, penetrates the surface area of the timber to a depth of 5mm, in the end grain surfaces 50mm.

SURFACE TREATMENT

All wooden components are covered with a water based glaze in a 2 step flow coating process, which not only colours the wood but also provides a long lasting protection against mould. For the furniture range we use an even milder type of water based ground oil as moldprotection. Covering topcoats are occasionally used for the play and park products. Certain furniture can be ordered only treated with the ground oil.

Steel components are either hot-dip galvanised or powder-lacquered with polyester-type powder coatings. Galvanised steel is powder-lacquered.

QUALITY SYSTEMS AND ENVIRONMENTAL SYSTEMS

HAGS is quality accredited in Sweden in accordance with the SS-EN ISO 9001:2000 and ISO 14001:1996 quality management systems.

GUARANTEE

- **20 years** Against failure due to material or production defects on HPL components
- **10 years** Against failure due to material or manufacturing defects on all galvanized and other non-painted steel and metal parts, solid plastic panels and engineered wood.
- **5 years** Against failure due to material or production defects on springs, painted metal parts, molded plastic parts and net constructions.
- **2 years** Against malfunctions due to defects in materials or production on movable plastic and metal parts.

The warranty does not cover any product that has been damaged or rendered defective as a result of:

- For natural wear and tear, discoloration and surface corrosion
- If not maintained or handled correctly, if subject to abnormal use or vandalism
- If the buyer has not performed and documented inspection and maintenance as directed in General facts, Guidelines for operating a playground in public areas and the product maintenance instruction
- If the product is assembled in a manner that is contrary to our instructions
- If the product is exposed to environmental impacts not foreseeable by HAGS
- For corrosion damage when the product is directly exposed to salt water. When installed within 200m from the coast line, warranty period is halved on damage caused by corrosion
- If the product is used together with or is incorporated with products not approved by HAGS Aneby AB
- If the buyer fails to notify HAGS or its authorized dealer of the defect within three (3) months from the day the defect was discovered or should have been discovered
- If the buyer does not observe the instructions issued by HAGS or its authorized agents regard to the handling of the complaint case

During the warranty period, HAGS undertakes to, by HAGS own choice, to either replace or repair the defective part. Replacement component/s shall be sent or repairs made without undue delay. If HAGS so requests, the replaced parts should be returned to HAGS. Warranty for replaced or repaired parts is valid for the remainder of the original warranty time.

In order to make warranty claims, the customer must present a readable unchanged warranty card or original sales receipt for HAGS or our authorized dealers. In addition, if requested, HAGS may request to obtain a copy of documents showing how the inspection and maintenance has been conducted.

If a dispute arises concerning the warranty, it shall be finally settled by arbitration in Sweden at a location determined by HAGS .

SAFETY

An effective safety standard seeks to create the safest possible playgrounds without detracting from their pedagogic value or, indeed, the attraction they hold for children. Our products comply with all the demands made in the EN 1176 and EN 1177 safety standards and are TÜV tested and approved. Products that are also tested and approved in compliance with ASTM F1487 (the current safety standard of the American Society for Testing and Materials) are listed on IPEMA's website.

For many years, HAGS has actively participated in the work of continually improving and upgrading current European safety standards.

SPACE REQUIREMENTS

In certain instances the no-encroachment zones of equipment may overlap - but this does not apply in the case of slides, swings, roundabouts, cableways and other non-stationary equipment.

CUSHIONED SURFACING

The quality and depth of the surfacing material must comply with the EN 1176 and EN 1177 safety standards. Surfacing must allow for the necessary drainage of water.

RUBBER

- Prefabricated tiles are laid out on a level, well-drained surface.
- Granules are laid out on a level, well-drained surface.

OTHER SYNTHETIC MATERIALS

- Please see manufacturer's instructions.

LOOSE-FILL MATERIALS SUCH AS SAND, GRAVEL, BARK AND WOODCHIPS.

HAGS recommends using evenly distributed sand or gravel, with a grain size between 0.5 and 5 mm. Please refer to EN 1176 and EN 1177 for information regarding sizes of other materials.

Recommended depths for loose-fill surfaces:

Depth of loose-fill material Fall height up to

100 mm + 200 mm 1.00m

200 mm + 200 mm 2.00m

300 mm + 200 mm 3.00m

The above values take into consideration the fact that loose materials get pushed away in high-use areas.

Other types of loose-fill material

Any type of shock-absorbing material not specified in the EN 1176 standards should be tested and approved by an EU accredited test institution.

ASSEMBLY

Transportation requirements and environmental considerations mean that HAGS play items are delivered in one of the following three ways:

- 1 Unassembled in kit form; for example, swing sets,
- 2 Pre-assembled sections; for example, play systems,
- 3 More or less fully assembled; for example, slides.

ANCHORING

For safety, stability and theft prevention, all play equipment needs to be properly secured. The most important reason is to prevent serious injuries caused by inadequately anchored equipment.

HAGS play equipment is delivered for different types of ground installations:

- pre-cast concrete block. Unless otherwise specified, must be anchored in sand or gravel.
- ground anchor, e.g. on concrete surface.
- poured foundation.

Some products require anchoring with in situ concrete. Casting components are fixed into place before concrete work commences. Concrete strength must correspond at least to the requirements as directed for each product. Concrete work must be carried out by fully qualified personnel.

It will sometimes be necessary to have a deeper foundation when using loose-fill materials, such as bark, woodchip, etc.

Please contact your HAGS representative for further details.

ASSEMBLY INSTRUCTIONS

To ensure that the play equipment is installed safely and correctly, the assembly work must be carried out in full compliance with the assembly instructions that are included in all products from HAGS. The equipment must be installed by qualified professionals. The failure to install equipment according to assembly instructions can involve safety hazards and may render the warranty null and void.

If additional assembly instructions are required, please contact your HAGS representative.

In order to prevent accidents, the play equipment must be made totally inaccessible until the assembly work has been fully completed.

INSPECTION

Once assembly work has been finished and the play equipment is securely and safely in place, it has to be inspected with regard to safety, functional performance and assembly. Appropriate and necessary remedies must always be carried out on equipment that is not approved before it can be used.

GUIDE TO PLAYGROUND MANAGEMENT

Supervision should always be conducted taking into consideration the extent of use and the type of product. The recommendation refer to normal use. At playgrounds with a high frequency of use the supervision interval should be shortened and adjusted to meet the required needs. In the same way the interval can be extended if the frequency of visitors is low for example because of winter conditions.

Management Information - Assembly - Maintenance - Inspection: see "Guide to Playground Management in Public Environments" on our website www.hags.com

MAINTENANCE OF HAGS STAINED WOODEN COMPONENTS

Proper maintenance is essential to preserve the appearance and functional properties of wood. The time interval and choice of maintenance methods depend on the location of the equipment and the amount of use it gets.

Before starting maintenance work, it is necessary to assess the state of the surface finish. Surfaces with fairly little mechanical damage and a film-coating that is otherwise intact are repaired using method A) a transparent stain. Surfaces with extensive damage to the film-coating are repaired using method B) a solid colour (pigmented). Also see HAGS Finisher for easier maintenance.

A. TRANSPARENT WOODSTAIN

Do not work in direct sunlight or at temperatures below +10°C.

1. Clean the old surface or damaged area thoroughly with pre-paint cleaner. Rinse carefully with water. Clean between the boards wherever necessary so that moisture run-off works properly.
2. Let it dry until the moisture content is not above 18%.
3. Scrape or sand the damaged (black) areas to remove loose paint and then apply two coats of oil primer. Or treat the entire surface. Let it dry between applications.
4. Leave to dry for at least 4 hours at a temperature of +10°C or above.
5. Then apply two coats of woodstain to the damaged areas to achieve the right colour. It may be necessary to apply a final coat to the entire surface. Let it dry between applications.
6. Leave to dry for at least 4 hours at a temperature of +10°C or above.

B. SOLID COLOUR WOODSTAIN

Do not work in direct sunlight or at temperatures below +10°C.

1. Clean the old surface or damaged area thoroughly with pre-paint cleaner. Rinse carefully with water. Clean between the boards wherever necessary so that moisture run-off works properly.
2. Let it dry until the moisture content is not above 18%.
3. Scrape or sand the damaged (black) areas to remove loose paint and then apply two coats of oil primer. Or treat the entire surface. Let it dry between applications.
4. Leave to dry for at least 4 hours at a temperature of +10°C or above.
5. Then apply two coats of solid colour woodstain to the damaged areas. It may be necessary to apply a final coat to the entire surface. Let it dry between applications.
6. Leave to dry for at least 4 hours at a temperature of +10°C or above.

Although the pigments of our solid colour woodstains have been specially developed to match our transparent woodstain shades, slight differences may arise as it is technically impossible to guarantee a 100% match at all times.

WOODSTAINS ETC. FOR MAINTENANCE WORK

Available from HAGS.

- Oil Primer (colourless) HAGS 353 340 (5-litre can only).
- Woodstains available in required colours (0.75 l cans).
- Solid colour woodstains available in required colours (0.75 l cans).

Please contact your HAGS representative for more information.

TOUCHING UP POWDER-LACQUERED STEEL COMPONENTS

HAGS touch-up paint should be used to repair any damage to powder-lacquered surfaces.

Minimum temperature +10°C. Do not work in direct sunlight.

1. Carefully sand rough edges around the damaged area.
2. Use white spirit to clean the area
3. Apply touch-up paint and leave to dry for 8 hours.

RECYCLING

HAGS uses materials that fulfil technical demands with the least possible impact on the environment during the full course of their lifespan. Many of the products can be separated into different parts to enable easy recycling of materials. You can see below examples of disposal methods for the various different kinds of material.

Materials Method of recycling

Wood (Class B impreg.) recycling, energy-recovery

Metals recycling

HPL energy-recovery

Plastic components recycling, energy-recovery

Plastic foam energy-recovery

As waste disposal matters are dealt with at a local level, please contact your local municipality if you have questions about recycling.

Material

Wood (Class B press. imp.)

Metals

HPL

Plastic, solid

Plastic foams

Method

Recycling or energy-recovery

Recycling

Energy-recovery

Recycling or energy-recovery

Energy-recovery

Product design alterations.

We reserve the right to amend design specifications without prior notice.