

# PROCESSING GUIDELINES

## » Tool selection



### SAWING & CUTTING

High-speed band saws and circular saws with slightly crossed teeth, preferably carbide-tipped, produce the best finish. Quickly remove any shavings to avoid smearing the plastics. Lengths can also be shortened using a chainsaw, however, it is necessary to consider a loss of accuracy.



### ROUTING

The span cross-section should be as large as possible to keep the machining heat relatively low. Depth of cut and feed rate should be high, the cutting speed on the other hand low. To increase the tool life, we recommend using routers with indexable carbide inserts.



### DRILLING

Spiral bits with a helix angle from 20° to 30° peak angle from 110° to 120° can almost always be used. Relaxation strokes should occasionally be used, especially with larger drilling depths, to avoid high frictional heat.



### PLANING

Standard planes can also be used to process plastics. The surface is largely dependent on the feed rate, cutting speed, clearance and cutting angle and the condition of the machining blade.



### DEBURRING

Angle grinders are not suitable for cutting due to their high speed. Plastic parts, which exhibit burrs or edges following machining, can be processed with an angle grinder.

## » Tips for processing recycled profiles



When bolting recycled profiles together, the profile to be fastened must be pre-drilled (e.g. boards, dock planks, square profiles). The hole must be larger than the bolt. Elongated slots are recommended to account for the temperature-related expansion of the material.



Recycled profiles are only partially paintable due to their properties. Good results have been obtained using permanently elastic plastic paints (all-weather paints) together with a roughened surface and priming. Permanent paint adhesion cannot be guaranteed.



hanit® products can be nailed both conventionally and with nail guns. Due to the compact surface, it is, however, more difficult to penetrate the profiles than it would be with wood. Consider this when fixing.



Compared to wood or metal products, plastic has lower stiffness and greater flexibility. These special material properties must be observed accordingly when planning distance between supports in dock, fence, and patio construction.



If profiles are hammered, we recommend using a mallet or a corner protector to prevent damage to the product.



Boards, beams, and square profiles must not be press-fitted. The profiles may exhibit length variations of +/- 1.5% due to temperature fluctuations. An expansion gap (expansion joint) must therefore be maintained during installation.



Sunlight affects the profile alignment, and can, for example, cause fence posts to tilt. To prevent profile distortion caused by sunlight, the profiles should not be stored loosely.



We have structural verification tests, installation recommendations, and mounting instructions for many products and applications. For more information please visit [www.hahnplastics.ca](http://www.hahnplastics.ca) (see "Downloads").

**hanit® products can be processed as necessary with conventional tools and machinery used in wood and metal processing. However, due to the properties of the material, some specific features must be considered:**

- » In general, machining of profiles causes higher tool wear. We therefore recommend the use of carbide-tipped tools.
- » Recycled products have a closed surface. The core may have a honeycomb structure, which becomes visible during machining. This is due to the material properties.
- » Some hanit® products are reinforced with steel. You can recognize these by the note "with reinforcement" or "reinforced". Cutting or sawing these products (length/width) should be avoided.
- » Any chips that occur during machining should be collected by an appropriate extraction system or device so they can be reused.