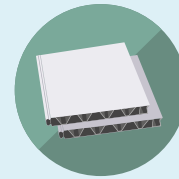


PVC RECYCLING

How sustainable are Bouwplast PVC panels?

bouwimpex



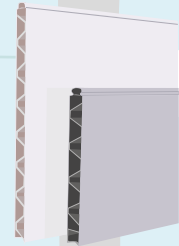
Plastic is separated

Bouwimpex takes back leftover and used Bouwplast PVC panels for reuse.



A new panel is made

The panel can be recycled again after use.



PVC collection is expected to provide a 100% reusable waste stream in the future.

100%

Recycling rigid PVC costs less CO2 than producing new material.

- CO2

Rigid PVC has a very long lifespan and can be reused several times without loss of quality.

0%

- Rigid PVC has a very long lifespan.

- Bouwplast panels are produced from scraps from the PVC window industry.

- PVC panels can be 100% recycled.



Grinding is reused

The grinded PVC can be reused in the production process.

Grinding is washed

To reduce water consumption, we use a closed water cycle and rainwater.



Hard PVC is crushed

Green energy (solar or wind) is used for this process.



Does PVC fit into a circular world?

Yes!



How sustainable are Bouwplast PVC panels?

Over the last two decades, the PVC industry has made great progress in terms of recycling and sustainability. It is now possible to recycle PVC 100% into new, fully-fledged products.¹ Although the process still faces some challenges.

The recycling of PVC

PVC can be recycled in two ways: mechanically and chemically. In the recycling of Bouwplast panels, the mechanical method is used. This process roughly follows three steps:

1. Separation of rigid and soft PVC (and other types of plastic).
2. Grinding the material into flakes.
3. Washing and drying the grinding material.

After this process, the grinding material can be reused in the production process². The separation of the various types of plastics is challenging. The better the separation, the higher the quality of the final product. PVC that is collected completely homogeneously can be reused several times.³

As the material has a long lifespan, it can be used as a high-quality building material for an exceptionally long time.

What about Bouwplast panels?

Bouwplast panels are made from leftover pieces from the plastic window industry. They already consist of recycled PVC. Bouwimpex also takes back residual pieces and used Bouwplast panels for the production of new panels. The grinding material that is used in production, consists partly of our own products and is completely homogenous. This means it can be used in new PVC panels without any loss of quality.

Energy and CO2

Doesn't the recycling of PVC cost more energy and CO2 emissions than the sourcing of new materials? No, it does not. Studies show that in the most ideal circumstances, recycling PVC costs up to 90% less energy than sourcing and applying new raw materials.⁴ Even if the recycling process is not optimal, recycling PVC is more eco-friendly than producing with raw material.

What about Bouwplast panels?

To compensate for the extra energy used in the recycling process, we use green electricity. This is either generated by our own solar panels, or purchased from a green energy company.

To wash the grinding material, water is also needed in the recycling process. To reduce water consumption, we use a closed water cycle in the plant which is replenished with rainwater.

Bouwplast panels in a circular economy

PVC is already widely recycled. The technology is developing fast. It is realistic to expect that the collection and recycling of PVC will produce a fully reusable waste stream in the future³. As the demand for strong and reusable building materials increases, the construction sector is seen as a promising application opportunity for recycled PVC⁵.

The current waste system is not yet geared to 100% PVC recycling. We therefore take as many measures related to sustainability as possible ourselves. By collecting, grinding and reusing PVC, we integrate circularity into the production process. As a result, Bouwimpex plastic panels are already a sustainable building material.

Bronnen

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3. Braun, D., Recycling of PVC, Progress in Polymer Science, 2002, 2171-2195
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