

BOLON ON

PLASTIC

BOLON

BOLON'S POSITION ON PLASTIC IN OUR FLOORING

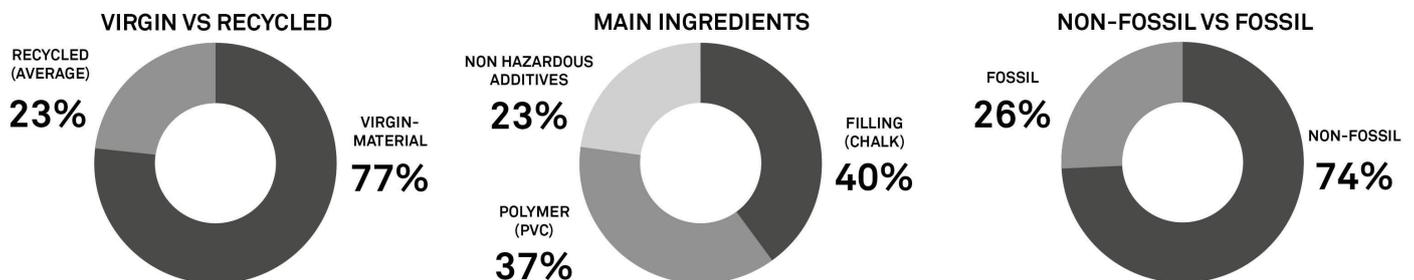
In 1949 our founder came up with the idea to use scraps of nylon plastic and cotton to make rag-rugs. Since then, Bolon, and the world, has changed but the idea of an adaptable company with a sustainable mindset remains. Sustainability is, and will always be, part of our DNA. Plastic as a material and its industry on the whole, has over the last decades been the topic for debates and often highlighted as a major factor in climate change.

This information focuses on Bolon's position on plastic, our product and its content, the difference in types of plastic, fossil and bio-based raw material, recycling and more.

WHY WE USE PLASTIC

Bolon uses construction plastic, a very resource-efficient material. The light and strong material only require a few kilograms of material per square meter and is therefore excellent for our design flooring. The unique combination of light and strong adds great characteristics. Outstanding wear resistance in combination with water resistance keeps our flooring beautiful over long periods of time without the need for surface treatment. Low emissions during its entire lifespan and absence of phthalates make our product a non-hazardous flooring option, suitable for all kinds of spaces.

THE CONTENT OF OUR FLOORS



Bolon flooring contains PVC plastic as polymer, chalk as filling and non-hazardous additives. The average floor consists of 74 percent non-fossil material. The main ingredient, chalk, is non-fossil based as is the biggest part of the PVC which comes from salt. Furthermore, additives consist of more than half of non-fossil material. The remaining 26 percent is fossil material coming from oil or gas.

All of our products contain on average 23 percent recycled material which is a mix of recycled filling, recycled additives and recycled PVC. So, to summarize, the majority of our product is non-fossil material, and all products have recycled content.

CONSTRUCTION PLASTIC AND POLLUTION

The problem with plastic pollution in our seas is a serious global issue. But there is a clarification needed when it comes to the difference in plastics. The overwhelming majority of plastics found in oceans are disposable; bags, cups and other items produced for single-time use. In addition to these plastics fishing nets and microplastic from fleece garments, residue from car tires and certain cosmetic products create problems in the oceans.

Bolon however produces flooring out of construction plastic. This type of durable plastic can also be found in long-lived objects such as car interiors and buildings. Construction plastic does not contribute to the general pollution of oceans and the high wear resistance prevents the release of microplastics as our floors come with a 10–15 year warranty.

PLASTIC, CLIMATE CHANGE AND RECYCLING

Another major global issue is climate change. Due to its partial origin (oil or gas), plastic and its effect on climate change are subjected to debate. When fossil material like oil, coal and gas is burnt to produce electricity, heat or drive vehicles the results are carbon emissions that contribute to climate change. If not burnt, but instead used to produce materials with a long lifespan, there is no climate impact.

Plastics actually take part in the reduction of carbon emissions in many parts of society. The use of plastic enables food to stay fresh over longer periods, make cars lighter thus making them require less fuel. The wings on wind power plants are made light and strong. Plastic as material is vital in our society and the list of plastics playing a positive role can be made long.

Today the two most common ways of dealing with waste, is landfills and incineration for energy recovery. Burning waste containing plastic will therefore contribute to climate change. Therefore all kind of plastic should be recycled.

In today's society, the recycling of metals like copper and aluminum is standard practice. Just like plastic, metal is a finite resource, and the circular mindset should be the same for both materials. Switching from landfill and incineration towards material recycling is the most efficient way in fighting climate change. This will make old resources new once instead of waste creation.

FOSSIL-BASED VS BIO-BASED PLASTIC

A current discussion is a transition from fossil-based plastic to bio-based plastic, as over 99 percent of the world's plastic derives from fossil sources. The importance of a transition to bio-based plastics is sometimes highlighted by the need for decreased carbon emissions.

But there are challenges with the sources of raw material, for both fossil-based and bio-based. With its origin from crops or trees, bio-based plastic is facing the challenge of expanded fields of use. This is a concerning development since crops and trees have the natural ability to store fossil carbon, i.e. reduce climate impact.

A global transition to this type of use will also have effects on biodiversity and food production. There is also a debate regarding burning of biobased plastic can have the same effect on climate change as fossil-based plastics. This will be the case when trees with a very long lifecycle is used as raw material. Oil and gas are an efficient raw material for making plastic materials but for the climate a poor way to produce energy.

When it comes to material properties, there is no difference between fossil- and bio-based plastics. The waste problem and the need for recycling are the same. This means that material recycling is equally important when producing fossil or bio-based plastics as the difference lies within the building blocks of plastic, not the plastic itself.

There is a small fraction of plastic where bio-based can be of use and that's if you need a biodegradable function but for plastic products where you need durability and a long lifespan that's not a good option.

PVC OF TODAY, AND TOMORROW

Throughout history the production of PVC has been linked to environmental problems. Thanks to technological advancements and a shift to non-hazardous additives modern PVC plastics are nothing like the early days and the problems are reduced. Today, the difference in environmental performance between different kinds of plastics is marginal. PVC has, from a climate perspective, a lower impact due to the use of salt as raw material. Furthermore, the advantages of PVC are many with durability, fire resistance and cleaning properties. Another positive property of PVC is the ability to recycle, which can be done many times over, with good quality.

BOLON'S ACTIONS ON PLASTIC

We see the sustainable solution as a circular material flow where no waste is created. This will reduce both our climate impact and waste generation.

We started with recycled content in our floors already in 2014. Today our flooring contains 23 percent recycled material, and we are heading towards much higher numbers. The next step is to include the after-use phase in the process. We have embarked on a journey where we explore the possibilities of taking back used flooring in their entirety. In 2020, we started pilot projects to take back old flooring and turn it into new flooring. We managed to produce new floors from 100 percent of the ones we took back. No waste was created.

Today our flooring, and all other flooring, to a huge extent ends up at landfill or is incinerated for energy recovery. Due to the fact that our flooring only has 26 percent fossil content the climate impact if incinerated is minor. If it ends up in landfill there is no climate impact. We estimate that in a global average, 30 percent of our floors will be incinerated after use. The way forward is material recycling of used floors which take away the climate impact both in production of virgin materials and that from incineration after use. On top of that it will reduce waste generation

We have looked into the use of biobased material but with only 26 percent fossil content, we see that oil or gas is the most efficient raw material for us today and we focus on the circular approach which will get the best sustainable results both for climate and for use of resources.

We have found a high quality solution with virgin PVC, from environmentally labeled suppliers with non-hazardous additives. And in average we add 23 percent recycled material into our floors that further reduces the environmental impact.

We have a recycling plant in operation at our factory and see big potential in closing the loop of the materials in our floors.

SUMMARY

Plastics:

- Construction plastic like flooring does not contribute to the pollution of seas
- Oil and gas are an efficient raw material for making plastic materials but for the climate a poor way to produce energy
- The waste problems and the need for recycling is the same for both fossil-based and bio-based plastic
- Material recycling is the way ahead to both reduce climate impact and waste

Bolon flooring:

- Is resource-efficient and durable with a long lifespan
- Our flooring do not contribute to pollution of our seas and there is no release of microplastics, thanks to the high durability
- Consists of 74 percent non-fossil material
- Contains in average 23 percent recycled material
- Bolon uses environmentally labelled PVC free of hazardous additives with low emissions during its lifespan and is, therefore, a sensible flooring option, suitable for all kinds of spaces
- Bolon has a clear focus on a reduced climate impact and waste with more recycled materials in our products
- Bolon has embarked on a journey where we explore the possibilities of taking back used floors in their entirety

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