

What is PVC Like Compared to Other Materials?

It's Lightweight but Strong

PVC's abrasion resistance, light weight, good mechanical strength and toughness are key technical advantages for its use in many applications.

Let's take a look at some of the stats:

TYPE	PRODUCT
Tensile Strength	2.60 N/mm ²
Notched Impact Strength	2.0 – 45 Kj/m ²
Thermal Coefficient of expansion	80 x 10 ⁻⁶
Max Cont Use Temp	60 oC
Density	1.38 g/cm ³

It's Easy to install

PVC fabric can be cut, shaped, sewn or welded and joined easily in a variety of styles.

It's Durable and Long-Lived

PVC is heavily resistant to weathering, chemical degradation, general corrosion, shock and abrasion. It is therefore very useful as a material for quite a few long-life and outdoor products. In fact, medium and long-term applications account for 85% of PVC use in the building and construction sector.

It's Cost-Effective

PVC has been a popular material for decades due to its physical and technical properties, which provide excellent cost-performance advantages. As a material it is very competitive when it comes to price – this value also boosted by its long lifespan and low maintenance costs after installation.

It's Safe and Versatile

PVC is none toxic. Like all chemicals used within Europe, PVC falls under the REACH legislation which is designed to provide a high level of protection of human health and the environment from the use of chemicals.

The use of PVC fabric within Europe is monitored and controlled by trade and industry bodies who ensure that compounds can't be added to PVC that breach the REACH legislation.

Typical resistance properties for PVC & PVC fabric are listed below:

TYPE	PRODUCT
Dilute Acid	Very Good
Dilute Alkalis	Very Good
Oils and Greases	Good (variable)
Aliphatic Hydrocarbons	Very Good
Aromatic Hydrocarbons	Poor
Halogenated Hydrocarbons	Moderate (variable)
Alcohols	Good (variable)

In addition, products made of PVC are generally resistant to weather, oils and Ultra Violet exposure. Finished products are flexible or resistant to mechanical shock and can be pigmented in any color. The versatility of PVC allows it to be used for a wide range of applications with high standards for product quality.

Is PVC Sustainable for my Project?

PVC is used in various fields ranging from health care (blood bags), essential services (water supply, sewage, supply of electric power, etc.), housing, transportation, consumer products, and electronics. The applications are generally categorized on the basis of the hardness of products, e.g. rigid or flexible.

PVC products feature most prominently in those requiring long service lives, such as mass transportation, automotive, medical devices and products.

Leading the way in Sustainable Development

PVC's contribution is not just limited to the products that is made from. The industry is also setting a unique example in the process of working together as a supply chain to drive forward ethical sustainable development.

The recycling of post-consumer PVC waste in the EU achieved 260,842 tons in 2010 – an increase of 220,000 tones as compared to the 1999 recycling numbers – exceeding a 10-year target of 200,000 tones established by Vinyl2010, a Voluntary Commitment of the PVC industry to reduce the environmental impact of PVC production – signed in the year 2000.

PVC fabric manufacturers across the entire EU also achieved 94% compliance with the industry production charters for VCM, suspension PVC and emulsion PVC. These impressive results have been built upon even further by the introduction of a new voluntary programs that sets out a new list of targets for PVC manufacturers to achieve; these include advancements in:

- Sustainable energy
 - Continued control of emissions
 - Sustainability awareness
 - Further controlled loop management of PVC production
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