

# UPVC Doors and Windows

UPVC or uPVC stands for unplasticised PVC. Since, it is unplasticised ie, it is not softened by introducing plasticisers to PVC, it is harder and tougher than the usual PVC which is plasticised. Simply put, UPVC is a rigid and stronger form of PVC.

Like PVC, UPVC too has diverse applications. Durability, light weight, decay or corrosion resistance, ease of installation, economy etc. are some of the key factors going in favour of UPVC products. Over the years, it has also proved to be an effective substitute for wood and a reliable construction or building material. An example is UPVC doors & windows.

UPVC is being used as a substitute for wood in door & window frames, complete doors & windows (ie, not just the frames) besides host of other work like panels, cladding, partitions and so on. It's growing popularity can be realised from the estimation that reveals that about 55 to 60% of all recently used window frames in USA are not made up of wood, steel or aluminium but of uPVC. UPVC doors and windows are quite popular in many parts of Europe as well. It's making it's way to other parts of the world too.

UPVC material itself is a very good sound and thermal insulator. So, if UPVC framed doors, windows or ventilators are double or tripple glazed, they become good noise and thermal insulators as a whole. These attributes come quite handy in very cold, hot or noisy areas. These additional benefits don't come with wooden, steel or aluminium elements as none of these materials are heat or soundproof.

Some of the advantages of UPVC doors or windows over it's wooden, aluminium or steel counterparts are:

They are completely immune from biological decay, corrosion, termite attack etc. and thus are much more durable.

They are light-weight and easy to handle or install.

Unlike wooden, steel or aluminium doors & windows they don't need any kind of protective coating.

They are available virtually in any colour. The colours do not fade unlike in metallic or wooden frames as they are inherent. Thus, the question of initial or periodic painting does not arise which is less cumbersome and more cost effective.

They are usually low cost and virtually need no maintenance. As a result, they are more economical as compared to metallic or wooden doors and windows.

UPVC Door and Window frames can be reinforced with steel in order to increase their strength further. This makes them suitable for areas experiencing high-intensity wind.

Being highly weatherproof, monsoonproof or moistureproof, they have distinct edge over wooden or aluminium windows in wet or harsh weather conditions.

Being highly chemically resistant, they are not affected by oil, grease, salt, cement or other chemicals. This attribute makes them quite suitable for industrial or harsh environmental conditions.

Stains, scratches, marks etc. can be erased and polished with ease using water paper.

Variety of additives and stabilisers are added to UPVC during its manufacturing in order to render the material highly resistant to sunlight or UV radiations which prevents it from fading. Additives also enhance its fire resistance by reducing its flammability. Because of its high salt content UPVC quickly extinguishes on its own.

In spite of being light weight UPVC doors & windows are good shock absorbers and tougher than wooden, Al or fibreglass frames.

They can be easily recycled and given new shapes.

They come in many designs or styles offering customers plenty of options to choose from. Custom designs are also possible.

They are quite strong and highly unbreakable. In the western countries, most manufacturers of UPVC doors and windows provide at least 10 years of guarantee.

There could be few minor disadvantages too. For example, UPVC doors or windows can't have the kind of sophisticated designs that can enrich wooden doors and windows. Yet, in many cases these can prove to be much better choices as compared to the metallic or the wooden ones.

Source: <http://civilconstructionresourcez.wordpress.com/2012/03/12/upvc-doors-and-windows/>