

The Wild Format guides are intended to expand awareness and understanding of the craziness that can be created on wide format digital printing devices, from floors to lampshades and everything in between.

These guides are made possible by Digital Dots with generous support from HP, Techkon and Zünd.

We hope you enjoy the articles and that you put into practise what you learn. If you want to talk about it, go to our LinkedIn group at <http://linkedin/1pkeLH1>

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Hey good looking – what is cooking?

Digitally printed interior decoration has become quite a thing in the last few years, as technology made it possible to print textiles, wallpapers, even carpets and floors digitally and with ease. While opening a whole new world to professional designers and creative types, product safety becomes a significant question for Print Service Providers (PSPs) and their customers alike.

If you feel you would like a room with a purple zebra patterned carpet, yellow flowers on your wallpaper, and fresh apple green checkers on your bed sheets, you can go for it: digital wild format printing has

made it possible to produce short-run or one-off products based on whatever wild design a customer could think of. There is no minimum order, no limitation on colours, no need for step-and-repeat: the ultimate freedom. Wise men (and women) have said that with freedom comes great responsibility, and this is even more true when it comes to interior design. After all, interior decoration items often are close to their owners' hearts, lungs and skin, quite literally.

It is therefore crucial to understand that some of the digital wild format technology commonly used to print interior decoration was not at all invented for these kinds of products. For any aspiring interior designer, professional or private, it is of the utmost importance to remember this: UV-curing and (mild) solvent ink printed products are first and foremost for outdoor applications, trade fairs and sampling. It may still be possible to use them for products for everyday use in homes, restaurants, hotels and many other spaces. But customers and PSPs alike need to dedicate some time and effort to making sure these products are safe.

So, what is the problem about printed interior decoration products again? When a customer buys a roll of wallpaper or a decorated cushion from a renowned



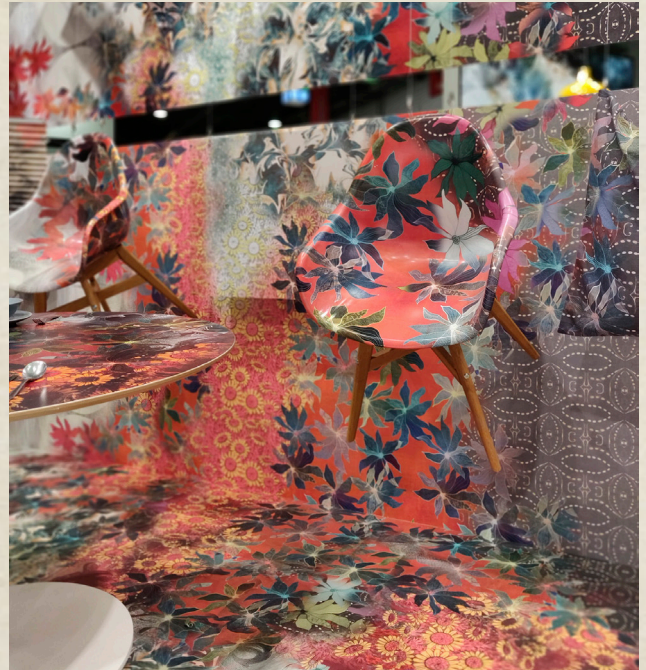
Digitally printed carpets have increasingly become very popular in hotel design. Photo © Sonja Angerer

brand, he or she most probably fell in love with its print or texture. Most of the value of the item remains invisible, yet crucial. The brand should have made sure that the product meets all health and safety regulations applicable in the buyer's jurisdiction. Which, depending on the area, may be vast and not quite easy to understand or to meet. Which may, after all, be one reason for the premium premium brands usually charge against a no-name product. But those standards are of course equally applicable to any company that sells goods. And that does include any tiny newcomer label, too. While a long-

term producer of conventionally analogue printed interior decoration products has most certainly set up a production process with applicable regulations in mind, a digital print service provider has not necessarily done so. This is more likely when digitally printed interior decoration is only a small part of the business. For PSP's own and that of the customers' safety, a designer selling printed interior decoration items must understand that doing so makes them a manufacturer and so required to meet applicable regulations.

Regulations for printed interior decoration

Things would be much easier, if there were a set of global regulations a manufacturer could meet and be done with it. After all, thanks to the internet one can quite easily sell even the most niche product worldwide. Alas, there is no set of global regulations covering such sales. Even in the European Union, where regulations should be harmonised between all 28 members, they just are not in certain areas. The same applies to the different states in the USA. And don't underestimate health and safety regulations in big emerging countries like Brazil, India or China. And just because an item has been certified as safe in one country, that does not necessarily mean the certificate will be accepted in another. It is therefore highly recommended to



We spotted this digitally printed chair at a Heimtextil Frankfurt 2019 trade show stand. Photo © Sonja Angerer

enlist industry insiders for help in cutting through the regulatory jungle covering, and sometimes strangling, printed interior decoration markets.

The main areas of interest for a designer keen to sell digitally printed interior decorations are general product usability, air pollutants, washability, potential for skin irritations, and fire retardancy. Early on in the project, these requirements must be clarified with the PSP to make sure the product is safe and meets health and safety requirements.

Common health and safety concerns

Wallpaper is the posterchild of printed interior decoration (no pun intended).



Digitally printed wide format print in a Wiesbaden hotel room. Photo © Sonja Angerer

Health and safety regulations in the European union include CE Sign, and EN 233 regulations about wallpaper and wall coverings, plus EN234 (for washability and light fastness). Additional national regulations may very well apply in different European Union member countries, for example in Germany 89/106/EWG applies for materials used in building houses. Which regulations are to be applied in the UK if and when Brexit happens, is impossible to say today.

Textiles used for, or as part of, a piece of furniture need to meet DIN EN 14465:2006

in Germany and are required to be at least Oeko-Tex compliant in many developed countries. Fire retardancy is the most crucial requirement for printed interior decoration. In the European Union, EN 13501 is the standard to meet, though instead compliance to (or additionally) B1/ A1 (Germany) as well as M1 (France) is very common. Fire retardancy needs to be tested in certified lab, typical fees may exceed €2,500. Even qualified print service providers sometimes make the mistake of claiming that any print on a B1/ M1 certified material qualifies for B1/M1 retardancy. While this might be validated



A Berlin food bar uses digitally printed wallpaper to illustrate their Hawaiian theme. Photo © Sonja Angerer

in the lab test often enough, without the validation the item does not legally qualify as safe.

With items for home or office use, Volatile Organic Compounds (VOCs) and other hazardous air pollutants are to be avoided at all costs. Customers also most often do not appreciate the smell of chemicals, even though they might not necessarily cause health problems. Conversely if an item has no odour, it does not automatically mean it is safe. Many printer manufacturers get Nordic Swann or Greenguard certifications

for their inks, and while those indicate that the inks are safe, it is still highly recommended to run a lab test. The Nordic Swann label originated for Scandinavian countries but now has holders around the world, while Greenguard is issued by the US based UL certification body. Other countries might not recognize these labels preferring instead to work with local standards.

So, wait, what is a poor designer to do?

Overlooking all the various regulations and laws, any aspiring designer may very easily feel very disappointed and discouraged. However, there is no need for this. Find a qualified PSP and a technology you can trust. (Hint: sublimation print on polyester as well a Latex and textile print with dedicated inks is usually considered quite safe). Then educate yourself which basic certificates you require. You are a producer now and it is part of your responsibility to your customers. Don't let red tape spoil the creative freedom digital production technologies bring you. With the help of digital printing, let your creativity go wild (you so deserve it ...).

– **Sonja Angerer**