WHITE PAPER

Helping raise consumer confidence in fire retardant products.

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When quality doesn't always come as standard.

As a consumer we seek confidence that the product we buy or the service we use will meet our expectations or possibly even exceed them. Needless to say, we all have differing levels of acceptance on quality, service and value.

This confidence in quality is even more important when it comes to products that are designed to keep us safe. We've started by exploring some of the more well-known examples of safety innovations and standards.

How getting people to belt up has saved countless lives.

The first seatbelt was invented and patented in 1885 by Edward J Claghorn, yet it took another 74 years until the first three-point belt was developed by Nils Bohlin.

The three-point seatbelt was first installed in a car, as a standard item, in 1959 by Volvo. But it wasn't until 1970 that a country, Australia, made it a legal requirement to wear seatbelts. Other countries followed and added a substantial public broadcasting effort to change the mindset of drivers and later passengers.

The reductions in road traffic fatalities was staggering – over 100,000 in a 10-year period in the US alone. Today, it is fully engrained in people in almost every nation. But consumer confidence in this safety measure has to be backed by robust, enforced standards.

Consistently maintaining seatbelt standards.

It's the responsibility of the car maker to ensure the seatbelt provided is fit for purpose, and this can be backed up with factual evidence and independent verification.

In order for a seatbelt manufacturer to be able to offer their product to market, they must ensure it meets or exceeds the standard and prove it does it consistently. If they can't, their product is withdrawn from sale and a large-scale product recall to repair or replace belts that might be suspect is required.

Providing enormous peace of mind so little-ones can have fun.

Our next example impacts children on a daily basis. Toys.

They're a fundamental tool in child development, from the earliest stone marble game to the latest electronic gadget. And as the demand for toys grew and become more industrialized, so did the need to ensure toys are safe and appropriate for the age of the children they are designed for.

We have seen toys made from lead become obsolete and those constructed to a substandard quality being withdrawn and recalled by retailers. There's also the safety warning 'may contain small parts – choking hazard' and the now compulsory CE mark as a recognized quality standard.

Why have fire retardant products escaped the same level of scrutiny?

When it comes to matters related to fire safety, why do we accept products that either have never been tested or have no evidence of continuous consistency for performance?

The tragedy of Grenfell Tower in London has highlighted this on a number of levels. Unfortunately, the reality of sub-standard fire resistant products has been accepted over many years. It has taken this huge tragedy to raise the questions for homeowners, landlords and tenants as to what level of confidence they can put into the products provided. And not just the credibility of the product's core material, but also how they are installed and who specifies them.

Understanding the wider picture when it comes to fire safety.

Before looking into how the construction and refurbishment industry can work to build consumer confidence in an area that can impact so catastrophically, we've explored some real-life examples.

It would be easy to revisit the highly-publicized issues raised through the Grenfell Tower investigation in relation to external cladding. However, this is only one example and it's important to fully understand the wider picture and failings that need to be addressed.

Despite the extensive recent media coverage, failings are not confined to high-rise housing. It relates to any public building, factory, office, school, hospital, hotels, etc., as well as three-storey houses, homes converted into flats and purpose-built apartment blocks, of any size.

Also, it is worth noting that a lot of discussion has been had on what are deemed as 'high-risk buildings'. Consumer confidence is currently only predicated on whether the products supplied and installed are fit for purpose and can prove it consistently. Few consumers have any regard for the risk of the building that they are installed in.

The risk dynamic is more a matter for building planners and architects, when they consider the construction or refurbishment of a building. These respective professions also need to have confidence that the products they are specifying, will give the level of protection required and promised - and can evidence the fact in a robust manner.

Putting the most vulnerable at unnecessary risk of fire.

Primary schools are another example worth exploring. The education sector is under considerable funding constraint and has to squeeze money from its finite budgets to cover any areas of maintenance, let alone addressing risk areas when they are highlighted.

In the UK, the responsibility for understanding and monitoring fire standards became the responsibility of the head teacher and board of governors, under the Regulatory Fire Reform Act. But is it reasonable to expect an individual that has been trained as an educator, and a group of respected volunteer governors, to fully understand the fire risk within their school on a daily basis?

It is also a legal requirement to have a fire safety audit annually, which the school will sub-contract to either the Local Education Authority or a private company. When these assessments are undertaken, they give a snapshot with a list of actions that are needed and a headache as to where to find the money to do them.

But the risk factor with fire is not on the day that the fire assessor comes around and all staff have been briefed beforehand – it's the other days when fire doors are left wedged open to aid the flow of children. Or even worse, when the door-closer is removed because the door is too heavy with it on.

Adding fuel to the fire with a colorful display.

It's not always the most obvious things that pose a big risk either.

Corridor display boards add color, vibrancy and a real sense of achievement to a school. However, since the escape routes in a school need to be able to protect and direct children and staff safely in the event of a fire, these wonderful displays suddenly become a real danger, with the notice board itself being the fuel to the fire.

David Drew (MP for Stroud), stated in a recent debate in the House of Commons that the majority of notice boards fitted in schools are made from a material that meets the lowest European safety standard (EN13501), class E. He suggested the Government's fire safety in schools guidelines should be updated to require all boards to be fire-safe to European class B standard or the national equivalent.[1]

Leaving a mark of trust on wood-based boards.

Another example, which could be seen as even more challenging, is the global market for the treatment of solid wood, plywood, oriented strand board (OSB), medium density fiberboard (MDF) and particle board.

The industry is estimated to manufacture circa 380 million cubic meters per annum – and it's growing year-on-year.

In Europe, it is a requirement that wood-based boards are CE marked to certify their structural stability, as well as having the respective supplier's CE reference. This will dictate the performance standard of the product, when it was made, and even which batch the board is from

This enables the manufacturer to quickly highlight and isolate any quality issues. It also acts as a mark of assurance to the consumer that the product they are buying is fit for purpose and has all the requirements behind it to give true consumer confidence.

Overcoming the issue of accurately certifying fire rated boards.

The need for timber boards, including OSB, MDF, particle board and plywood, to have a fire rating has increased substantially. In response, the most respected suppliers have now produced boards with fire retardancy built in and the CE mark reflects it.

The trouble is, if the board uses a surface treatment or an impregnation treatment, any CE mark the board originally carried should now be null and void. But how does the consumer know this when they can see the CE mark still on the board and the supplier confirms the board has been treated for fire too? Surely it should be compulsory that the old CE mark is removed (sanded off or defaced) and replaced with a new mark indicating the standard achieved?

Passing off a board that cannot prove its structural capabilities, after a post-manufacturing process, as a CE board is morally wrong. The consumer assumes the board is structurally sound and fit for purpose because the CE mark implies it. But no such claim should be allowed until the structural integrity of the board has been re-tested.

With the growth in the use of wood-based board products in construction, transport and furniture industries, this has to be acted upon.

So how can we ensure consumer confidence when acquiring products?

Firstly, through obvious, accurate, up-to-date labelling by the product manufacturers. Without this and clear guidance, we will never see a change and we'll continue to leave everyone and everything at risk.

Because having confidence in the products we specify, buy and install is more than just about quality – it's about safeguarding lives. And there should be no area more critical or highly monitored than fire safety. Why? Because it matters.

Get in touch

We are curious by nature and our continued education on all aspects of life that our technology affects is something that is fundamental to our company. This is why we are dedicated to producing papers, undertaking research and creating resources to educate and challenge the industries we work within.

Want to learn more?

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1 https://www.bbc.co.uk/news/uk-politics-45977540