

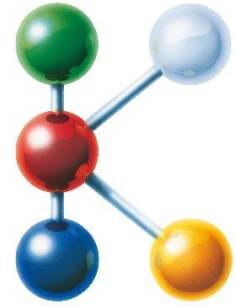
How do we communicate the value of sustainability through colour, materials and finishes in plastics?

An assessment by Chris Lefteri, internationally recognised expert in the field of material design and organiser of the guided tours at K 2025.

There's a paradox at the heart of designing the aesthetics of products with sustainable materials. If you replace a less sustainable material with a more sustainable material but do the job so well that the newer, more responsible version is visually indistinguishable from the original, less responsible version, the question becomes: where does the sustainability story go and how do you communicate your wonderful achievement?

If the bio-based, recycled, low-carbon or whatever flavour of environmentally responsible material you've used looks like the original plastic, it's difficult to communicate the sustainability of it, because the end result looks exactly the same. Visually, there's no difference. The paradox at the core of what we as designers do is: in our quest to be sustainable, the sustainability story itself often vanishes. Or does it? It's an important question to ask because so much importance is placed on the environmental angle and making it a feature of the product story - by product I mean anything from car interiors, appliances, sports goods, consumer electronics, etc.

A lot of our work as designers is about replicating our existing knowledge of common plastics and processes but now having to think about it in a responsible, sustainable way. Instead of electroplating plastics to create shiny premium finishes, for example, we might use some sort of recycling-compatible process instead, where the end result is very similar, if not identical, to the original way of doing things. But do we simply want to replicate what we have always done (metallised plastics, shiny surfaces) in a more sustainable way? Or do we actually want to do things differently, capturing the imaginations of consumers and getting them excited about a new way of doing things? From a



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**Messe
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Messe Düsseldorf GmbH
Postfach 10 10 06
40001 Düsseldorf
Messeplatz
40474 Düsseldorf
Deutschland


Telefon +49 211 4560 01
Telefax +49 211 4560 668
www.messe-duesseldorf.de
info@messe-duesseldorf.de


Geschäftsführung:
Wolfram N. Diener (Vorsitzender)
Marius Berlemann
Bernhard J. Stempfle
Vorsitzender des Aufsichtsrats:
Dr. Stephan Keller

Amtsgericht Düsseldorf HRB 63
USt-IdNr. DE 119 360 948
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strictly environmental point of view, progressive aesthetics are less of a concern so long as everything is achieved in a more responsible way. But are we missing a big opportunity to do something actually very different? Shouldn't we challenge expectations of what is good and desirable CMF (colour, materials & finishes)?

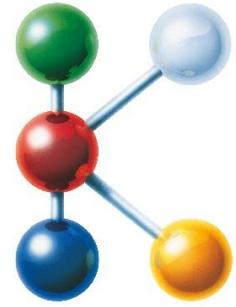
We've long accepted that materials like wood and metal carry their own natural imperfections—knots in timber, patinas on brass or copper—and we even celebrate them as marks of authenticity, age, and beauty. So why don't we do the same with injection-moulded plastics?

Some pioneering brands are starting to rewrite the aesthetic of plastic. The Microsoft Xbox Remix Special Edition Controller is a perfect example. Made from post-consumer recycled plastics, its surface shows subtle swirls, flow lines, and colour variations—visible traces of the recycled content. Instead of covering these “defects,” Microsoft chose to manifest them, making each controller visibly unique.

The Steelcase Perch stool takes this idea further. Produced from hard-to-recycle e-waste plastics, its finish is full of colour inconsistencies and ghosting lines caused by the irregular melting behaviour of recycled material. Rather than trying to improve the quality of the recycled plastic, Steelcase embraced the imperfect surface—and went even further by donating the most “messy-looking” stools, produced during colour transitions, to social innovation partners. They framed these unpredictable aesthetics as a reflection of real-world complexity and change.

These examples point to a new opportunity: to shift how we define beauty in plastic and embrace an aesthetic language where the marks of manufacturing processes and raw materials aren't hidden—but become a badge of value and honesty.

When it comes to more high-end products, where traditional notions of luxury play a crucial role—the challenge is even greater. There's often a strong desire to maintain familiar, high-end aesthetics such as that of metallic surfaces, which can make it harder to introduce new, visibly sustainable materials.



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In addition to looking for sustainable solutions to established materials and finishes like chrome, for example, should we be finding different sustainable processes to denote a new kind of luxury? Should sustainability actually be helping consumers shift their understanding of luxury, rather than just replicate their current one?

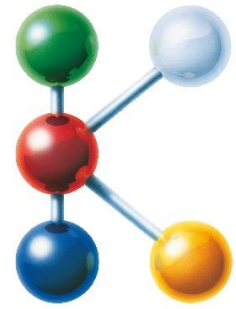
Some forward-thinking brands are already showing how this shift can happen. Panasonic, for example, developed Nagori—a plastic material made from minerals leftover from the water purification process. Its layered, precious stone-like aesthetic offers a unique, refined look that can easily compete with the most luxurious conventional materials used for accents and details.

Similarly, unidirectional polypropylene (PP) fibres, commonly used in structural composites, bring a new visual language to nonmaterial plastics. Their linear texture introduces a distinctive, high-end aesthetic that could be embraced as a modern marker of luxury—one rooted in material innovation and 100% recyclability.

The trouble is: mainstream materials such as plastics are still so desirable. They're manufactured to be spotless, pristine and flawless, capturing luxury in an instant. The outcome of 70+ years of designers learning how to use plastics, metals and new finishes. Perfection is still the rule of the day. That's why virgin plastics and others have such a hold on us; it takes a real mind shift to move away from the steady supply of predictable, high-quality and optimized virgin materials that we have become so used to.

One of the big trends in sustainable materials over the last few years has been speckled aesthetic. Whether from natural fibres or inorganic filler waste, these effects push material storytelling in a better direction. Not only do they celebrate the recycled or bio-based origin of the material, but they also create one-off, unrepeatabe aesthetics, giving each product a unique fingerprint tied to its sustainability story.

Several brands, including key players in the automotive industry, have started to embrace this new aesthetic at scale, working closely with



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material suppliers to develop innovative recycled grades that make sustainability visible. A notable example is the Volvo EX30, which features speckled door panels and upholstery from recycled materials. These distinctive textures have become a defining element of the car's interior design, earning the EX30 multiple award including the prestigious Red Dot 'Best of the Best' Award 2024.

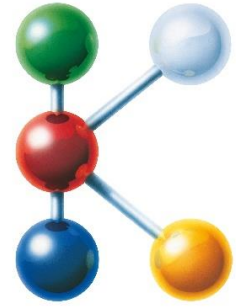
Similarly, Dacia, in partnership with LyondellBasell, has introduced speckled plastic components across its vehicle interiors, using post-consumer recycled content. These finishes bring a sustainability-driven aesthetic to cars, making the material's recycled origin visibly clear—a deliberate shift away from the industry's long-standing pursuit of flawless, uniform surfaces.

Interestingly, many consumers appear open to this shift. There's growing enthusiasm for products that visibly signal a move away from polluting, resource-intensive production. But the real resistance often comes from within—from decision makers concerned about not having enough appeal to mass market or from quality control teams who struggle with the lack of clear, measurable standards against which to assess these new, inherently variable materials.

What else is there beyond speckling, marbling and degraded surfaces?

One way forward is to bring mainstream and sustainability together in a better way. For example, what if we went the opposite direction from random speckle patterning and made something really consistent, taking into account the parameters of plastic manufacturing, to potentially reach a broader appeal than the current speckles approach, while still using recycled materials? Just as an example, you might have fine evenly distributed waste particles rather than randomly positioned speckles. This would be an evolutionary adjustment where the end result *almost* looks the same, but the consumer understands the slight difference.

People want to buy products that have a gentler effect on the planet—but they also care how their products look and feel. There is certainly a novelty factor in much of this –sustainability has got some great stories about novelty and innovation to tell. Many consumers are compelled to buy because of the sheer novelty of the item. That's where we, as CMF



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designers, come in. It's the designer's role to embody desire in a product and to make us fall in love with it, that's why clients pay for design. In a context of sustainability, our role as designer is not just to make things look good, but to make the sustainability story a joyful, desirable one. It's about shifting the narrative so that responsible materials aren't seen as a compromise, but as something aspirational and beautiful.

Of course, this isn't something we can achieve alone. It will require a collaborative learning curve, where industrial designers, CMF specialists, material scientists, and plastic and finish manufacturers work together more closely than ever before.

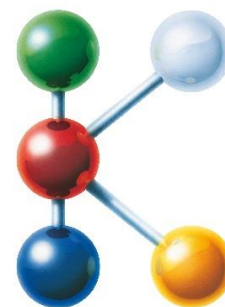
Together, we need to forge a new aesthetic language—one that makes sustainability visible, honest, and desirable.

That's exactly the spirit behind the tour I will be leading at the K Show. I've curated a selection of the most innovative and forward-thinking solutions in sustainable plastics, materials, and finishes—solutions that are available to all of us, right now, as a starting point in this exciting new journey. My goal is to give designers fresh inspiration, real examples, and the tools to start shaping a future where design excellence and sustainability go hand in hand. It's time to reimagine what beauty and value look like—starting with the materials themselves.

Material Design Tours at K 2025

The Material Design Tours at K 2025 will take place on Saturday and Sunday, 11 and 12 October, at 10:30 a.m. each day. They will last 1½ hours and are free of charge. Participation is limited, and you can register here: [Materials and Design](#)

About the author: Chris Lefteri is an internationally recognised authority in the field of materials and their application in design. The work of his studio and his publications have contributed significantly to fundamentally changing the way designers and the materials industry view materials. Chris Lefteri Design is based in London and Seoul and works with numerous Fortune 100 companies. The studio is considered one of the world's leading studios in the field of materials and CMF (colour, material, finish). Chris Lefteri studied industrial



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design under Professor Daniel Weil at the renowned Royal College of Art in London.

About K in Düsseldorf:

In 1952 K was held by Messe Düsseldorf for the first time and runs in a 3-yearly cycle. The latest K in 2022 registered 3,020 exhibitors from 59 countries on over 177,000 m² net exhibition space and 177,486 trade visitors, 71% of whom came from abroad. For more information go to www.k-online.com.

Your press contact:

Dr. Cornelia Jokisch, Senior Manager MarCom (Press & PR)

Desislava Angelova, Manager MarCom

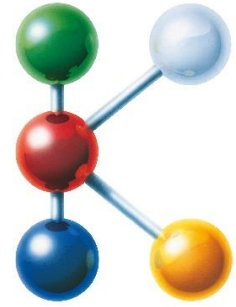
Tel.: +49 (0)211/4560-998, -242

Fax: +49 (0)211/4560-87998, -87242

Email: JokischC@messe-duesseldorf.de

AngelovaD@messe-duesseldorf.de

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