AWAKENING

Covestro CMF Design Trends
2022 | 2023 Edition

Automotive

covestro

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Content

At Covestro, we co-create Color Material Finish (CMF) with designers, blending aesthetics and functionality into material-based experiences that can surprise and delight consumers. Collaboration is at the heart of our business model – we value our partners and work closely with them to develop customized, finely-tuned solutions. We add value through aesthetic, functional and circular design.

A global service at your fingertips. Our team offers world-class color development, drawing on diverse backgrounds and experience across a wide range of industries to optimize the impact of CMF on consumers. With a network of 6 Color & Design Centers connected across the globe, we're ready to support your design process physically and digitally, no matter where you are located.

Inspiration for your CMF strategy or design concepts. We continuously analyze and monitor trends to extract implications on aesthetics of materials. Our trend brochure in its 2022 | 2023 edition shows how actual and longer lasting key themes for the industry can be translated into a convincing CMF strategy and a makeable design. We are constantly pushing the boundaries on what can be achieved with our high quality, tunable polycarbonate and hope to inspire designers by providing a glimpse of the possibilities.

We have a team of in-house designers and colorists who will help you better engage consumers through world class CMF design by leveraging the optical, tactile, haptic, mechanical, aesthetic and functional properties of polycarbonate. We're ready to help you make your designs a reality, from concept to mass-production.

Global Color & Design (CMF)
Email: CMF-Design@covestro.com

No longer the simple assembly-line produced metal boxes of yesteryear; today's automobiles are sophisticated machines that have surpassed their original purpose of transporting passengers from one destination to another. Vehicles are not only designed for meaningful integration of space and functionality but also viewed as a means of solving everyday problems and alleviating anxiety.

As it becomes easier to mimic current designs, finding unique sources of inspiration can prove difficult – as such, many are looking to various cultural origins to gain fresh insights and perspectives. Within the symbols, patterns, and other hallmarks of early civilizations, it may be possible to uncover new and innovative blueprints for future mobility.

It is also worth noting that automotive developments are moving from purely industrial pursuits towards more elevated, design-led approaches, driven by the considerable influence and purchasing behavior of younger consumers.

As the scope for interaction between user and vehicle continues to expand and evolve, so do the requirements for automotive materials. Contemporary material innovations have brought about greater design possibilities from better personalization, to lightweighting and recyclable materials enabling sustainable development in the process.

As the future CMF trends are mainly oriented to the interior, we focus these new proposal on the interior application.

Trend 1

Space at Pace

In the hustle and bustle of the city, the pace of urban life fragments time into fleeting moments, with enormous pressure to shift quickly from one context to another. Here, automobiles could become adaptive spaces to help manage these transitions, as interiors become more focused on pleasurable spatial experiences instead of technological displays. Users could fully immerse themselves in the relaxing, restorative environment automatically generated by the car and be rejuvenated.

Such spaces would provide a safe harbor, where users can enjoy being in a soothing, comfortable, and clean environment.

Warm Embrace

Whether it's associating sound with surface tactility, or temperature with geometry, the combination of multiple sensory stimuli can reshape our understanding of color, shape, structure, and texture. In this way, multisensory perception can enrich our experiences in ways that are reassuring or comforting, like a mother's embrace might be to a child. Such elements could be used to further enhance the experiences of those with partial or progressive physical impairment.

CMF
Warm shades of white and translucent blush tones create the feeling of being in a safe, snug haven where one can let go and fully unwind, while bubble textures add to the sense of being able to breathe freely.

Makrolon® Ai2497, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior. Makrolon® Ai2457, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

Oasis of Freedom

Over time, cars have provided people with the ability to travel far and wide at speed. Today's consumers want personalized spaces, separate from an office or residence; somewhere to relax, have a little breathing space and allow one's thoughts to wander, whilst secure in the knowledge that the vehicle is monitoring their health data for safe driving. On the other hand, cars are also becoming more like a flexible extension of the home, a place where family and friends can interact freely and safely.

CMF
Users require a balance between the private and public aspects of life. Light and natural hues bring about a soft, calming ambience, while textures that resemble rippling water create a sense of flowing movement.

Makrolon® Ai2457, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

Cocoons
22MOB11 (Base)

Solid
Gloss Front / Matt Back
Material: Makrolon® Ai2497
Only for automotive
interior application

Warmth
22MOB12 (Insert)

Translucid
Gloss Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Peppermint
22MOB13 (Base)

Translucid
Gloss Front / Gloss Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Light Grey
22MOB14 (Insert)

Translucid
Matt Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Trend 2

Distant Realms

Globalization has made the world smaller: the same stores appearing on every street corner, familiar skyscrapers dominating city skylines across the globe. In an era of instant information, have our lives all become indistinguishable from one another? Perhaps it is possible to break from this monotony by looking to past civilizations – authentic, unembellished colors and materials could be the key to unlocking greater imagination and creativity in mobility design. Rather than being confined to the rigid, cold nature of mass production, delving into ancient history could offer opportunities to re-think ideas, re-engage with the world, and craft sensory experiences that rekindle notions of warmth and nostalgia.

It is for these reasons that age-old cultures have long been a source of inspiration in automotive interiors. Their contribution is far from superficial; instead, they provide a rich cache of cultural knowledge, with complex concepts from philosophy to cosmology woven into symbols, patterns, and colors. Deciphering these codes is much like opening doors into different worlds, allowing us to interpret reality through a new lens and enriching our explorations of aesthetics.

The advancement of technologies such as 3D printing provide ample opportunities for breathing new life into traditional elements, such as materials with a hand-crafted, textured appearance. Artisanal techniques and know-how may seem familiar but can be adapted and reconfigured to achieve new design possibilities. This, perhaps, is how we may escape the bane of homogeneity.

Multicultural Inspiration

Through the study of other cultures and ethnicities, today's urbanites find an escape from the tedium of daily life, distancing themselves from reality whilst broadening their horizons. Automotive design takes cues from this approach by reinterpreting historical emblems and narratives to form novel concepts instead of replicating generic ones.

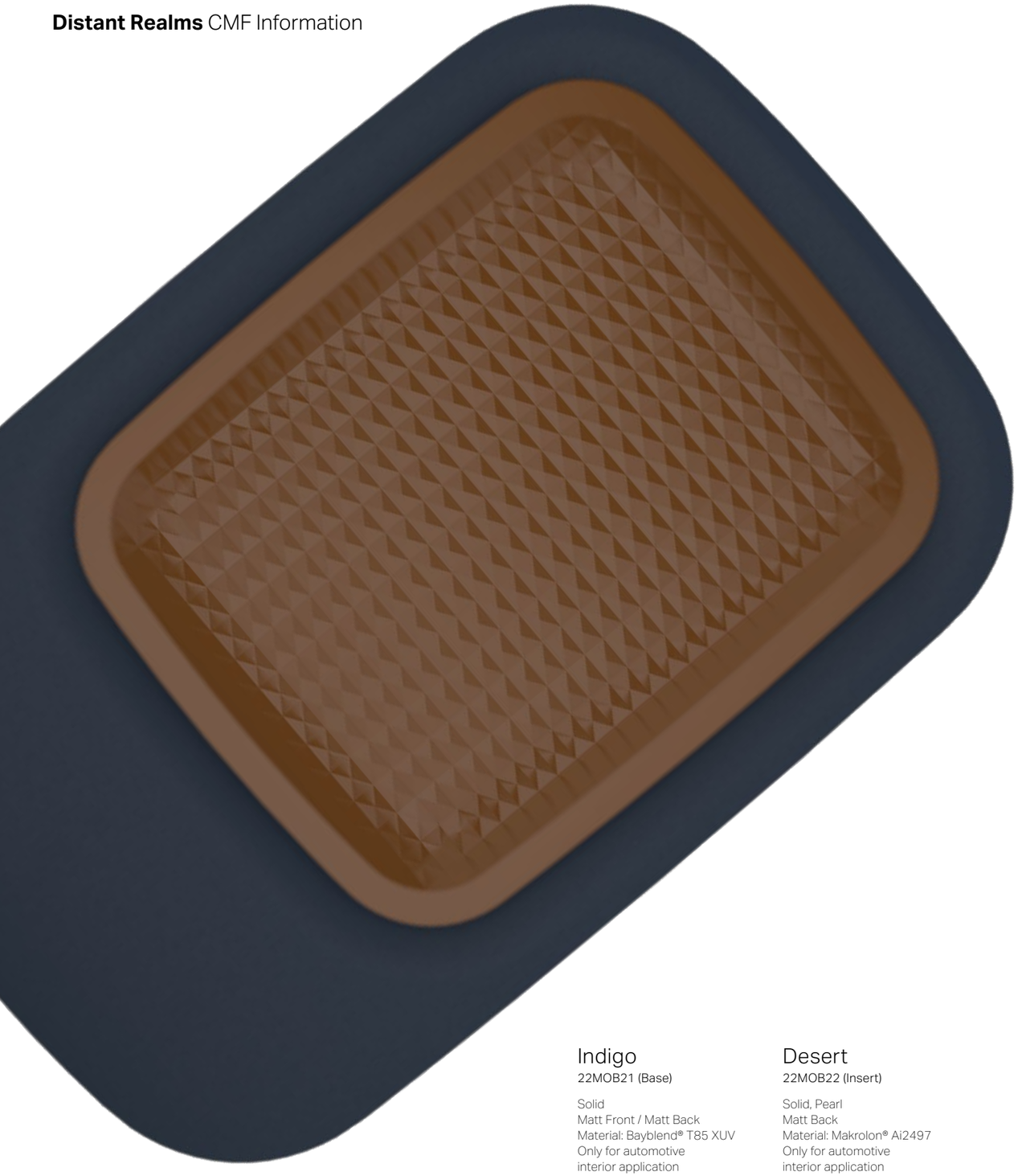
CMF
Cultural immersion and understanding can be an effective antidote to mediocre design. Boldly contrasting color combinations and shades reminiscent of natural elements such as wind, water and soil are ideal. Bayblend® T85 XUV, PC+ABS grade for best in class automotive interior light stability for unpainted molded in color parts.

Makrolon® Ai2497, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

Rethinking Craftsmanship

While standardization across the automotive industry has greatly increased precision in manufacturing, this efficiency can result in outputs that feel cold and impersonal. Can design be used to convey a more human touch, by bringing together craft techniques and technology in different ways? In the same way a person's handwriting tells a unique story about their personality and preferences, this combined approach could carve out new narratives for material design and development. This could lead to products that embody more warmth by bringing history and culture to life.

CMF
3D printing and other technologies are ushering in a new era of celebrating cultural traditions and craftsmanship, ensuring the continued existence of one-of-a-kind, handmade products.



Indigo
22MOB21 (Base)

Solid
Matt Front / Matt Back
Material: Bayblend® T85 XUV
Only for automotive
interior application

Desert
22MOB22 (Insert)

Solid, Pearl
Matt Back
Material: Makrolon® Ai2497
Only for automotive
interior application

Wild Peak
22MOB23 (Base)

Solid
Matt Front / Matt Back
Material: Bayblend® T85 XUV
Only for automotive
interior application

Wildflower
22MOB24 (Insert)

Solid
Gloss Back
Material: Bayblend® T85 XUV
Only for automotive
interior application

Kintsugi

22MOB25 (Base)

PC Part
Solid
Gloss Front / Gloss Back
Material: Makrolon® Ai2497
Only for automotive interior application
TPU Part
Material: TPU 3D printing

Sculpture

22MOB26 (Insert)

Material: PC 3D printing

Trend 3

Meaningful Autonomy

Young people are considered the lifeblood of urban development, but this consumer segment itself is also highly multifaceted. Any lifestyle is possible – single, DINK[1] , freelancing, or being a part of the 'Slash Generation'[2] – as long as you take responsibility for your choices. In contrast to the relatively conservative and prudent spending patterns of their parents, Generation Z[3] have higher disposable incomes and are more willing to spend. Cars are products of high practical value– providing mobility and the conveniences that come with it, but they can also be considered as works of art that display their owners' tastes. Anything can spark a new wave of consumer demand: for example, a newly launched art exhibition might trigger public interest in a particular color, or a bespoke pattern might appeal to young consumers who associate it with a sense of belonging.

Eager for creative encounters and outlets, the younger generation may look to automotive designs that enable them to discover, shape and express their individual identities in a meaningful way. In the near future, automotive designs that incorporate a mixed material palette and thoughtful aesthetics could cater to this need.

Self-expression Reigns Supreme

Social and recreational events, such as commercial art exhibitions, are leading the way in urban lifestyle trends. Young consumers enjoy outdoor activities such as skiing and fishing which were traditionally associated with the aristocracy, while also freely expressing themselves on social media.

CMF
Using a single shade of red, experiment with varying levels of transparency and expressions of color to demonstrate the diverse range of visual design possibilities that can be achieved across different platforms.

Makrolon® Ai2497, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior. Makrolon® Ai2457, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

The Irreplicable 'Me'

Automotive designs are developed with an eye on the bold and divergent purchasing patterns of young consumers around the globe. With a strong affinity for art and design, this generation is inclined towards palettes that emphasize their individuality and autonomy. They eschew rigid design principles in favor of pursuing rituals and a quality of life that brings them joy.

CMF
Contrasting hues of yellow and blue illustrate the ambivalent attitudes of the younger generation – the pearlescent blue represents new ideas generated by internal contradiction, while the translucid yellow embodies an emerging lucidity and clarity of thought.

Makrolon® Ai2457, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

1. DINK: abbreviation of the phrase "Double Income No Kids"
2. Slash Generation: the group of people switching between multiple roles/occupations.
3. Generation Z: the demographic cohort succeeding Millennials and preceding Generation Alpha (usually born 1995–2009).

Tomato
22MOB31 (Base)

Solid, Metallic
Matt Front / Gloss back
Material: Makrolon® Ai2497
Only for automotive
interior application

Watermelon
22MOB32 (Insert)

Translucid
Gloss Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Frost
22MOB33 (Base)

Translucid, Pearl
Gloss Front / Gloss Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Mango
22MOB34 (Insert)

Translucid
Gloss Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Trend 4

The Next Destination

Since its genesis, the automobile has undergone significant change in terms of exterior structure, functionality, and even aesthetic direction. Will the next wave of material and structural innovations pave the way for the next phase of automotive evolution? Current exploration of alternative materials and clean energy seems to indicate that cars will still have a place in future sustainable habitats. With flexibility, cleanliness and safety in mind, the goal is to build a lightweight, energy-efficient solution – so that each time the engine runs, it casts less of a shadow on the environment.

Lightweight Resilience

Advanced automotive designs are increasingly lightweight, with additional innovative features that lower energy consumption and emissions, thus reducing environmental harm. A light yet compact external shell requires even stronger and more durable materials to ensure a safe and comfortable driving experience.

CMF
Shades of black and purple evoke a sense of spaciousness, yet also reassuring reliability. Different levels of color opacity create a more effervescent visual appearance. The presence of rigid yet lightweight carbon composite further enhances this effect.

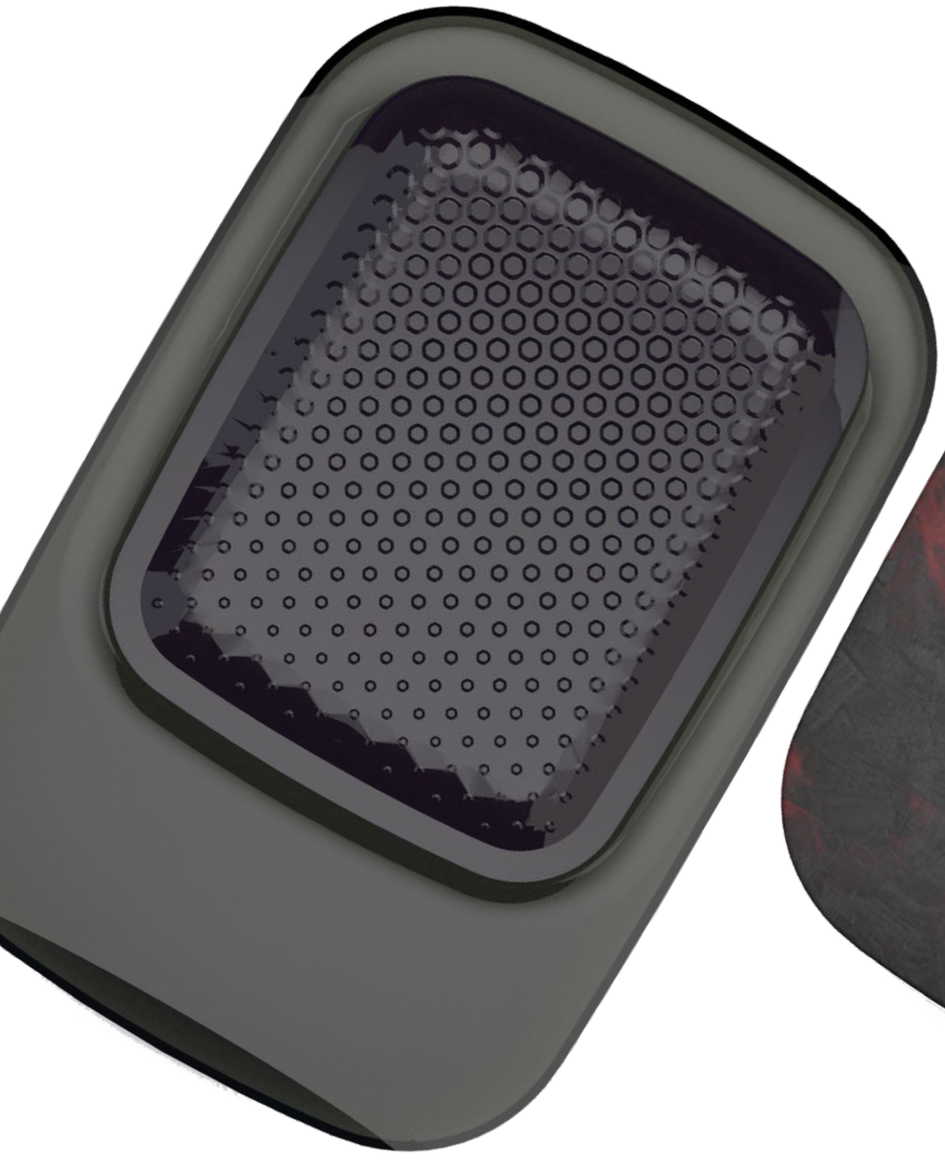
Makrolon® Ai2417, crystal clear / transparent colored and tailored for parts with the highest requirements for purity and high gloss surfaces in automotive interior. Makrolon® Ai2457, tailored for translucent parts with the highest requirements for purity and even appearance in automotive and truck interior.

Sustainable Development

The earth's resources are not infinite. Car manufacturers are now taking on more social responsibility by reducing energy consumption in product life cycles, transitioning to gas-electric hybrid or full-electric models, and exploring the use of sustainable materials.

CMF
Solid, earthy colors are a reminder that we have limited resources on our planet, while utilizing post-consumer recycled materials can help to encourage the implementation of circular systems.

Bayblend® T85X R25, (PC+ABS) Blend with 25% PC recyclate, good injection molding processing behaviour (easy flowing), available in dark colors only.



Obsidian
22MOB41 (Base)

Transparent
Gloss Front / Gloss Back
Material: Makrolon® Ai2417
Only for automotive
interior application

Mineral Grey
22MOB42 (Insert)

Translucid
Matt Back
Material: Makrolon® Ai2457
Only for automotive
interior application

Flame
22MOB43 (Base)

Solid
Color: 301796
Material: Maezio®

Essence
22MOB44 (Insert)

Solid
Material: Maezio®

Tawny
22MOB45 (Base)

Solid
Gloss Front / Matt Back
Material: Bayblend® T85X R25
Only for automotive interior application
Only avaliable in Asia Pacific

Golden Sand
22MOB46 (Insert)

Solid
Matt Back
Material: Bayblend® T85X R25
Only avaliable in Asia Pacific

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P. 8

22MOB11 Cocoons (Base)

Solid
Gloss Front / Matt Back
RAL 1013
Material: Makrolon® Ai2497
Only for automotive interior application

22MOB12 Warmth (Insert)

Translucid
Gloss Back
RAL 050 70 20
Material: Makrolon® Ai2457
Only for automotive interior application

P. 9

22MOB13 Peppermint (Base)

Translucid
Gloss Front / Gloss Back
RAL 200 80 15
Material: Makrolon® Ai2457
Only for automotive interior application

22MOB14 Light Grey (Insert)

Translucid
Matt Back
RAL 860-1
Material: Makrolon® Ai2457
Only for automotive interior application

P. 14

22MOB21 Indigo (Base)

Solid
Matt Front / Matt Back
RAL 5008
Material: Bayblend® T85 XUV
Only for automotive interior application

22MOB22 Desert (Insert)

Solid, Pearl
Matt Back
RAL 060 50 30
Material: Makrolon® Ai2497
Only for automotive interior application

P. 15

22MOB23 Wild Peak (Base)

Solid
Matt Front / Matt Back
RAL 750-6
Material: Bayblend® T85 XUV
Only for automotive interior application

22MOB24 Wildflower (Insert)

Solid
Gloss Back
RAL 010 80 15
Material: Bayblend® T85 XUV
Only for automotive interior application

P. 16

22MOB25 Kintsugi (Base)

PC Part
Solid
Gloss Front / Gloss Back
RAL 9005
Material: Makrolon® Ai2497
Only for automotive interior application
TPU Part
Material: TPU 3D printing

22MOB26 Sculpture (Insert)

Material: PC 3D printing

P. 22

22MOB31 Tomato (Base)

Solid, Metallic
Matt Front / Gloss back
RAL 030 50 40
Material: Makrolon® Ai2497
Only for automotive interior application

22MOB32 Watermelon (Insert)

Translucid
Gloss Back
RAL 030 60 40
Material: Makrolon® Ai2457
Only for automotive interior application

P. 23

22MOB33 Frost (Base)

Translucid, Pearl
Gloss Front / Gloss Back
RAL 250 70 30
Material: Makrolon® Ai2457
Only for automotive interior application

22MOB34 Mango (Insert)

Translucid
Gloss Back
RAL 080 70 70
Material: Makrolon® Ai2457
Only for automotive interior application

P. 28

22MOB41 Obsidian (Base)

Transparent
Gloss Front / Gloss Back
RAL 000 15 00
Material: Makrolon® Ai2417
Only for automotive interior application

22MOB42 Mineral Grey (Insert)

Translucid
Matt Back
RAL 300 30 10
Material: Makrolon® Ai2457
Only for automotive interior application

P. 28

22MOB43 Flame (Base)

Solid
Color: 301796
Material: Maezio®

22MOB44 Essence (Insert)

Solid
Material: Maezio®

P. 29

22MOB45 Tawny (Base)*

Solid
Gloss Front / Matt Back
RAL 070 50 20
Material: Bayblend® T85X R25
Only for automotive interior application
Only avaliable in Asia Pacific

22MOB46 Golden Sand (Insert)*

Solid
Matt Back
RAL 080 70 30
Material: Bayblend® T85X R25
Only avaliable in Asia Pacific

GERMAN DESIGN AWARD WINNER 2022

* Special color effect, can be challenging to implement in some of our material combinations.
# All colors have been created by Covestro's color experts. The correlated RAL color codes are a reference only and not fully accurate.

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 Edition: 2022-06 AUTOV1