Engineering Plastics
CQ Product Portfolio from Covestro

We materialize circularity

Makrolon® Bayblend® Makroblend® Apec®

A more sustainable polycarbonate portfolio for a brighter tomorrow

We're advancing circularity through innovative solutions: from non-fossil raw materials, and pioneering processes like chemical recycling, to circular design services that ensure products are durable, repairable, and recyclable by design. This is our CQ solutions – our strategy for expanding the range of circular, low-carbon footprint products.

Our Engineering Plastics CQ portfolio offers more sustainable alternatives through three distinct product lines: the R series resins with post-consumer recycled content, the RE series of renewable attributed materials, and the RP series of recycled attributed materials – all designed to reduce carbon footprint and increase circular share.

Let's push together for full circularity and climate neutrality

CQ product portfolio from Engineering Plastics

Indicative position of the product series related to their technical potential; individual products may differ.
Fully circular considering share of products related to altemative raw materials (e.g, waste, renewable)
* Partially bio-circular attributed certified share via mass balance, bio-circular attributed certified share shown.
** Partilally post-consumer chemically recycled attributed via mass balance, recycled attributed certified share shown.

Beyond materials, we offer holistic design approaches that not only emphasize circular material choices but also build circular systems. In collaboration with like-minded partners, we are endeavoring to close material loops and bring new life to alternative raw materials by transforming them into more sustainable polycarbonate solutions.

Learn more about our CQ portfolio

R Series:
Partially Mechanically Recycled Polycarbonates

The abbreviation R after the product name stands for recycled content products, generated from post-consumer recycled (PCR) waste.

A share of the primary fossil polymer is replaced by mechanically recycled polymer such as polycarbonate or polyethylene terephthalate (PET), sourced from our partners with quality assurance management systems to fulfil our sustainable sourcing requirements.

The R series is complemented with RV products for post-consumer recyclates derived from end-of-life vehicles and RI products for post-industrial recyclates with specific geographic availability.

Claimable Recycled Content

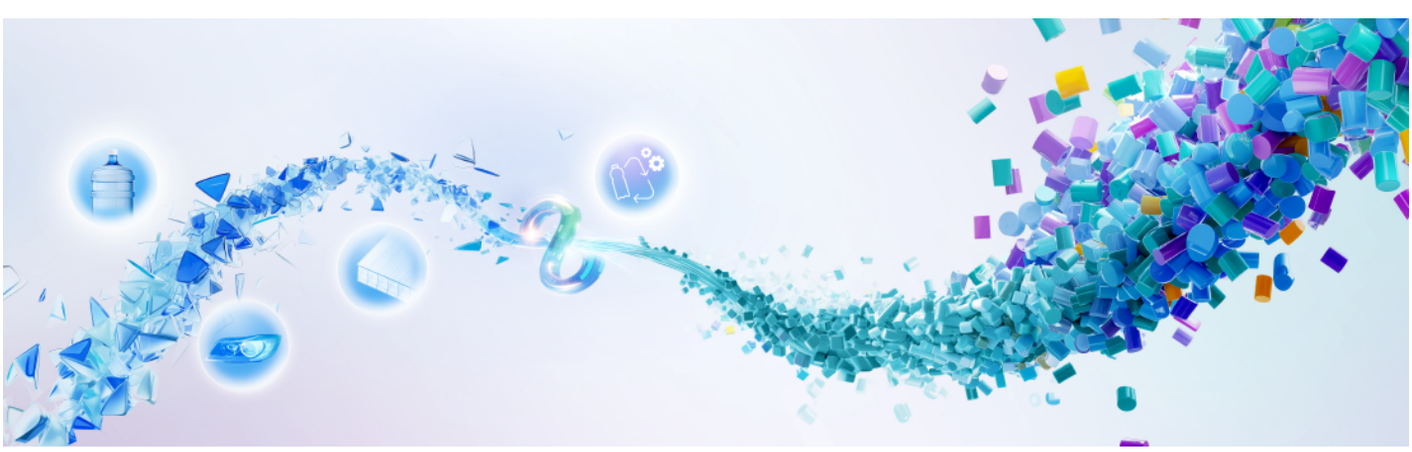
- A broad portfolio from 25~90% mechanically recycled content to address market needs
- PCR source certified by UL ECV or TÜV
- Different sourcing models to secure sustainable PCR raw material supply

Performance You Can Count On

- Robust formulation design to fulfill the required performance and specifications by industry
- Quality control system to provide lot-to-lot consistency
- Tailored global and regional grades to meet recycled content targets and regulations

Carbon Footprint Reduction

- Up to 70% lower than a comparable primary fossil based conventional offering
- Addresses plastics waste problem as alternative source



Learn more about R series

RE Series: Renewable-attributed Polycarbonates

The “RE” in the product name stands for “renewable” and represents a significant shift towards low-carbon footprint materials derived from renewable sources. Fossil resources are replaced by renewable alternatives sourced from biological waste and residues while maintaining the performance and quality of primary fossil-based polycarbonates.

Bio-circular Certified Attributed Share

- Up to 89% certified material, attributed to bio-circular sources via mass balance
- ISCC PLUS certified for systematic traceability
- Recognised as sustainable use of resources by key labels such as EPEAT(R).

Claimable Climate Contribution

- Significant* product carbon footprint savings
- Partially produced with 100% renewable electricity attributed via mass balance

* Carbon footprint can be reduced by up to 100%.

Seamless Transition

- Drop-in solution with consistent high quality
- Zero implementation effort
- Identical physical, mechanical, chemical, thermal, optical, electrical, weathering and processing properties as conventional Makrolon®, Bayblend®, Makroblend®, Apec® resins
- The RE resins maintain lot-to-lot consistency and are co-listed on respective UL yellow cards and AMECA
- Availability in large quantities, ensuring fast time to market without costly requalification

Learn more about RE series

RP Series: Recycled-attributed Polycarbonates

The “RP” in the product names stands for recycled attributed products and is related to chemically recycled feedstocks from post-consumer waste that replace primary fossil raw materials at the identical performance and quality.

Recycled Attributed Share

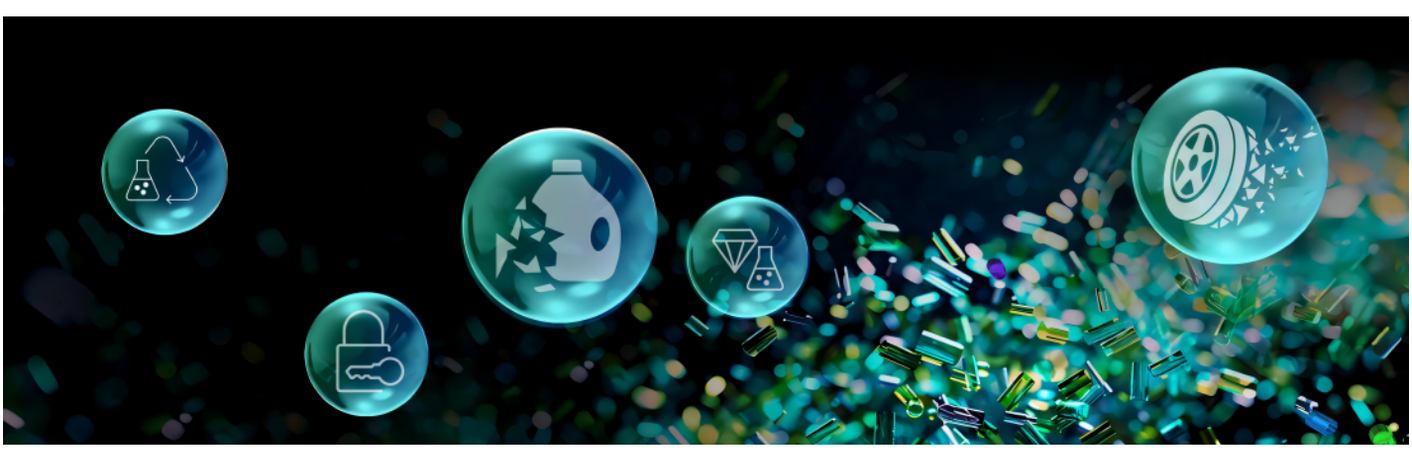
- Up to 72% certified material, attributed to recycled feedstocks via mass balance according to ISCC
- Related to chemically recycled post-consumer feedstocks with up to 20% abiotic depletion fossil savings compared to respective fossil alternatives

Seamless Transition

- Drop-in solution with consistent high quality
- Zero implementation effort
- Identical physical, mechanical, chemical, thermal, optical, electrical, weathering and processing properties as conventional Makrolon®, Bayblend®, Makroblend®, Apec® resins
- The RP resins maintain lot-to-lot consistency and are co-listed on respective UL yellow cards and AMECA

Chemical Purity

- Can be used for high optical requirements and sensitive applications



Learn more about RP series

Supporting little and big steps towards full circularity

Many of our mass-balanced CQ products are available with either 25% certified material share related to an alternative raw material or the highest possible share. R series are available with different levels of recycled content. This allows our customers to pace their circularity journey at their own speed.

Making an optimal use of our CQ materials

Success in circularity isn't just about materials - it's also about design. Color, Material, and Finish (CMF) choices play a crucial role in achieving circular goals. Our Circular CMF Guide supports your journey with actionable insights and best practices, including digital sampling and virtual prototyping with Imagio® CQ.

Our growing CQ portfolio

Discover our growing range of CQ products from our product families of polycarbonate and polycarbonate blends: Makrolon®, Bayblend®, Makroblend®, and Apec®.

For the most up-to-date information on available grades, visit our Solution Center or contact your Covestro representative who can provide personalized guidance for your specific application needs.

Take the next step in sustainability with the CQ circular solutions from Covestro.

Start exploring our CQ portfolio

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