

## **Covestro Makrolon® TC**

Thermally Conductive Materials for Heat Management in LED Lighting and Beyond



Makrolon®

covestro.com

## High-performance Solution for **Product Innovations of the Future**

For decades, technical designers from countless industries and application fields have trusted the Makrolon® polycarbonates portfolio as high-performance solutions for the product innovations of the future. Benefit from our most recent achievement! The Makrolon® TC portfolio offers superior alternatives to aluminum and other thermally conductive plastics - from both your business' and your customers' perspective.



They can be used for heat management in LED luminaires and other electrical applications. Primarily, they enable vou to

- Replace the aluminum in heat sink applications to
- achieve approximately 50% weight reduction
- Enable more simplified and integrated luminaire design by integrating more functions and components
- Gain high dimensional stability with amorphous materials

Cost-Efficient Alternative to **Aluminum and Other TC Plastics** 

Makrolon<sup>®</sup> TC, while still managing heat transfers safely, provides product advantages over aluminum through

- Significantly lower weight
- The option to be integrated with other components

Compared to aluminum and other TC plastics, they reduce complexity through integration and achieve weight savings of your products while meeting service life requirements. Technically, this means

TC511

**TC411** 

**TC210** 

TC110

- · Customized thermal conductivity characteristics
- Easy processing and new design opportunities through increased flowability and of multi-component processing options

This alternative is cost-efficient, because

- · Its low density offers an attractive cost/weight ratio
- It does not require a base coat if painted

And compared with other forms of other TC plastics. Makrolon® TC provides product advantages in the form of

- · High dimensional accuracy and low distortion tendency
- · Excellent dimensional stability over a broad temperature range
- · Increased long-term service temperature
- Combinability with other polycarbonates in multi-component processing
- Superior impact resistance of TC110

## **Covestro, Your Innovation Partner**

Covestro was the inventor of polycarbonate and has been championing it for decades. Our heritage and appreciation of partnerships enable us to push the boundaries in material science with customers and convert imagination into valuable products

If you want to know how Covestro makes the world a brighter place or whether Makrolon® TC is a fit for your next endeavor, please write to plastics@covestro.com for more information.



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