



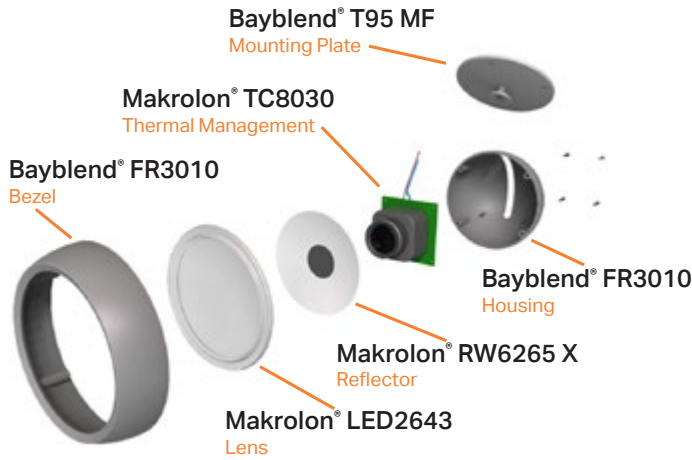
Smart Home: Polycarbonates for Automation and Security

Covestro offers cost-effective and brand-enhancing material solutions that meet strict material and regulatory standards. As technology continues to progress, Covestro can take your products to the next level by offering a wide range of thermoplastic products and world-class services for your automation and security applications.



MARKET TRENDS	CUSTOMER NEEDS	COVESTRO SOLUTIONS
Increased Use of Wireless Devices	Proper transmission of signals Interconnectivity to control components Designs to exceed the product life cycle	Plastics with low radio frequency attenuation Design freedom to maximize performance Part design recommendations
Décor-Friendly Gadgets	Blend in or differentiated devices Retention of color after indoor UV exposure Production in more than 1 world region	Wide variety of colors and different gloss levels Plastics that exceed standards for color shift Global plastic production for on-time deliveries
Increased Energy Efficiency	Devices with lower total cost Effective and low cost lighting DIY installation	Design to consolidate components with plastic LED grades for increased efficiency Plastics that can be easily assembled

Security Camera Components



Consider these valuable services in your next generation products:

- Idea / concept / product development
- Feasibility analysis and cost modeling
- Part consolidation and assembly advice
- Mold design and filling simulation
- Color matching and same day sampling
- Field technical service and troubleshooting

Let's Talk:
plastics@covestro.com

				KEY PROPERTIES ¹								
				Lens / Optics		Diffusers	Reflectors ²		Housings / Bezels			Heat Sink
Property	Test Condition	Unit	Standard	Makrolon® LED2245	Makrolon® LED2643	Makrolon® 2407	Makrolon® RW2407	Makrolon® RW6265 X	Bayblend® FR3010	Makrolon® EL703	Makrolon® 6487	Makrolon® TC8030
UV stabilized				No	Yes	Yes	Yes	No	No	No	Yes	No
Melt volume-flow rate (MVR)	Various ³	cm ³ /10 min	ISO 1133	34	13	19	19	19	15	26	9	
Mold shrinkage, parallel/normal	60x60x2mm	%	ISO 294-4	0.5-0.7	0.6-0.8	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.6-0.8	0.6-0.8	0.08-0.12
Transmittance	2 mm thickness	%	ISO 13468-2	90	89	67-83	opaque	opaque	opaque	opaque	opaque	opaque
Izod notched impact strength	23°C	kJ/m ²	ISO 180-A	55	65	65	15	15	35	50	65	4
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	125	126	124	124	124	90	96	122	141
Flame Class @ 1.5 mm		Rating	UL 94	V-2	V-2	V-2	V-2	V-0	V-0	V-0	V-0	V-0 (2 mm)
Flame Class @ 3.0 mm		Rating	UL 94	HB	HB	HB	HB	V-0	V-0, 5VA	V-0, 5VA	V-0, 5VA	V-0
Relative Thermal Index (RTI)		°C	UL 746B	125/115/125	125/115/125	125/115/125	125/115/125	125/115/125	95/85/85	105/90/105	125/115/125	-/130/130
UV light exposure and hot water		Rating	UL 746C	f1	f1	f1	f1			f1	f1	f1
Shielding effectiveness	2.4 GHz Vertical/Horizontal	Db	IEEE-STD-299	8/8	8/8	6/10	7/7	7/7	5/5	9/7	7/7	32/30

Notes

- Values are provided as general information only and are not part of product specifications
- 94-96% reflectivity
- MVR conditions: Bayblend 240°C; 5 kg, Makrolon 270°C; 5 kg, Makrolon 300 °C; 1.2 kg



Covestro LLC
 1 Covestro Circle
 Pittsburgh, PA 15205 USA
 412-413-2000

www.plastics.covestro.com
plastics@covestro.com

The manner in which you use, and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of product evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine, to your own satisfaction and requirements, whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoints. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

Bayblend®, Makrolon®, and Makrolon® are registered trademarks of Covestro.