

Outstanding aging resistance: New RTI rating for the molding compounds PLEXIMID® and ACRYMID®

- **New classification for PLEXIMID® TT50 and ACRYMID® TT50 as high-temperature materials according to UL 746B of up to 130°C**
- **New RTI rating expands the potential range of applications in the electrical industry for optical components with high temperature requirements**

The Molding Compounds Business Unit of Röhm GmbH has received a new RTI rating (relative temperature index) in accordance with standard UL 746B for the thermoplastic polymethyl methacrylimide (PMMI), which is marketed under the brand names PLEXIMID® and ACRYMID®.

PMMI is a material that is highly heat-resistant, and this property makes it suitable e.g. for use in the light guides of daytime running lights in modern LED headlamps. The material achieves the top RTI values across the entire portfolio of the acrylic-based molding compounds and provides a unique combination of very high transparency (91%) and high thermal resistance, withstanding continuous working temperatures of 130°C.

“In the electrical and electronics industry, we are seeing an increase in the demand for powerful and certified materials that display only minimal expansion even when subjected to temperature fluctuations and high continuous working temperatures, without any compromises being made in their optical performance,” explained Dr. Hartmut Elsässer, Senior Product Manager PMMI at Röhm. “Our brand PMMI is the perfect material for numerous applications involving high-performance LEDs because of its thermal stability.”

With the reclassification of the molding compounds PLEXIMID® TT50 and ACRYMID® TT50, which comes after one and a half years of testing, the material can now be used in new ways, with potential applications in the electrical industry for optical components with high temperature requirements, such as fiber optics, lenses, and secondary optics combined with high-performance LEDs. The UL certification is a worldwide standard and is often required for applications in electric and electronic parts.

The “yellow cards” for PLEXIMID®/ACRYMID® are listed under the file number E507751 for Röhm GmbH at Underwriters Laboratories (UL).

Component - Plastics					E507751		
Guide Information							
Röhm GmbH							
Dolivostraße 17, Darmstadt 64293 DE							
TT50							
Polymethacrylmethylimide (PMMI) "PLEXIMID® or ACRYMID®", furnished as pellets							
Color	Min. Thk (mm)	Flame Class	HVI	HA1	RTI Elec	RTI Imp	RTI Str
NC	0,8	-	-	-	130	115	130
	1,0	HB	-	-	130	115	130
	3,0	HB	-	-	130	115	130
Comparative Tracking Index (CTI): -				Inclined Plane Tracking (IPT) KV: -			
Dielectric Strength (kV/mm): -				Volume Resistivity (10 ^x ohm-cm): -			
High-Voltage Arc Tracking Rate (HVTR): -				Surface Resistivity (10 ^x ohms/square): -			
Dimensional Stability (%): -				High Volt, Low Current Arc Resis (D495): -			
NOTE - In the US, EVONIK ROEHM GMBH uses the designation "ACRYLITE or ROHAGLAS" instead of "PLEXIGLAS". In China, EVONIK ROEHM GMBH uses the designation "PLEXIGLAS or ROHAGLAS" instead of "ACRYLITE".							
ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.							
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Certified: New classification for PLEXIMID® TT50 and ACRYMID® TT50 as high-temperature material to UL 746B expands the potential range of applications in the electronics industry for optical components with high temperature requirements

About Röhm

With 3,500 employees and 15 production sites worldwide, Röhm is one of the world's leading manufacturers in the methacrylate business. The medium-sized company with branches in Germany, China, the USA, Russia, and South Africa has more than 80 years of experience in methacrylate chemistry and a strong technology platform. Our best-known brands include PLEXIGLAS®, ACRYLITE®, DEGALAN® and DEGAROUTE®. More information is available at www.roehm.com.

Röhm is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® and PLEXIMID® trademarks on the European, Asian, African and Australian continents and under the ACRYLITE® and ACRYMID® trademarks in the Americas.