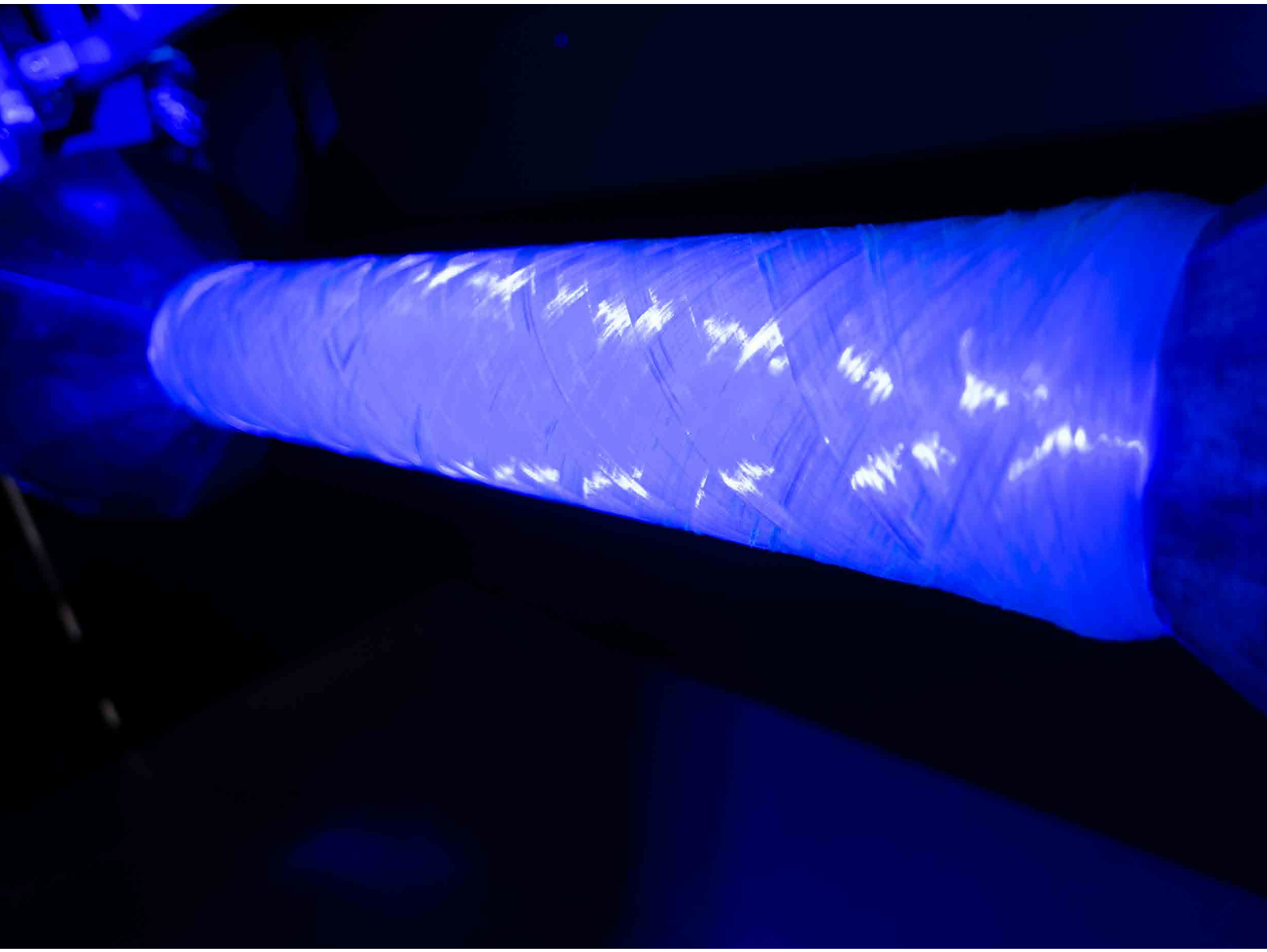
# RAYLOK© C

## CURING WITH THE POWER OF LIGHT



**RAYLOK© C1100, C1101 and C1102** our newest grades, offer a new solution for UV curable composites by combining the advantages of fast curing, styrene free and reduced waste. These grades are optimized for processability and performance.

### Main advantages of UV-curing

- 1K-system
- Higher throughput
- Styrene free
- Energy savings
- Reduced waste
- Easier cleaning

| Thermally-Cured system | UV-Cured system |
|---|---|
| All fiber types | Glass fiber |
| **Curing Equipment** | |
| Heating chamber / Oven<br>(typically high investment and requiring big floor space) | UV lamps more cost effective and having<br>small floor space requirements |
| **Curing Process, typically** | |
| More than 1 hour at elevated temperatures | From seconds up to minutes with UV lamp (80-200W/cm)<br>in same application |
| Heating chamber has significant energy consumption | Drastic reduction of energy requirements |
| Once components are mixed, curing will start | Cure on demand – No Light. No Cure |
| Humidity conditions can affect curing process | Curing independent from environment |
| **Emissions (Styrene)** | |
| Impact on ecological footprint | Very low to no VOCs |
| Regulatory risks | |
| Incineration installation | |
| **Cleaning of Processing Equipment** | |
| 0,5-1h / production shift | Virtually unlimited open time (unlimited pot life) |
| | Resin stays liquid and can easily be removed |
| **Resin Waste** | |
| Excess in resin bath has to be removed | Excess in resin bath can be re-used |
| Waste disposal/processing cost | |

| Property | Method | Unit | RAYLOK™ C1100 | RAYLOK™ C1101 | RAYLOK™ C1102 |
|---|---|---|---|---|---|
| Young Modulus | ASTM D638 | GPa | 2.3 | 2.1 | 1.6 |
| Tensile strength | ASTM D638 | MPa | 50 | 38 | 56 |
| Elongation at break | ASTM D638 | % | 2.3 | 1.9 | 4.4 |
| Flexural Modulus | ASTM D790 | GPa | 2.8 | 4.1 | 2.3 |
| Ultimate Flexural Strength | ASTM D790 | MPa | 80 | 59 | 81 |
| Ultimate Flexural Strain | ASTM D790 | % | 3.2 | 1.5 | 5.6 |
| Glass Transition Temp.: Tg1 = T(tan)max | ASTM D4065 | °C | 102 | 152 | 105 |
| Impact strength: sharpy un-notched | ISO 17 | J/m | 107 | 46 | 168 |
| Hardness | ASTM D2240 | Shore D | 84 | 88 | 85 |
| Shrinkage | | % | 9.5 | 8.9. | 5.4 |

RAYLOK© C1100, C1101 and C1102 are developed as a starting point to show the possibilities of UV curing.
Please discuss your specific requirements with our specialists.

For further details on this product and starting-point formulations, please reach out to our technical experts.
**To browse through our portfolio on our product finder, please scan the QR code.**

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