

# Makrolon® RW2405

## Grades / Special grades

MVR (300 °C/1.2 kg) 19 cm<sup>3</sup>/10 min; low viscosity; easy release; variable content of filler for high reflectance application; injection molding

## ISO Shortname

| Property  | Test Condition | Unit                    | Standard                | typical Value |
|---|----------------|-------------------------|-------------------------|---------------|
| <b>Rheological properties</b>   |                |                         |                         |               |
| Melt volume-flow rate   | 300 °C; 1.2 kg | cm <sup>3</sup> /10 min | ISO 1133                | 19            |
| <b>Mechanical properties (23 °C/50 % r. h.)</b>                       |                |                         |                         |               |
| C Tensile modulus   | 1 mm/min       | MPa                     | ISO 527-1,-2            | 2500 - 2700   |
| Yield stress  | 5 mm/min       | MPa                     | ISO 527-1,-2            | 60            |
| Yield strain  | 5 mm/min       | %                       | ISO 527-1,-2            | 5.5           |
| Nominal strain at break   | 5 mm/min       | %                       | ISO 527-1,-2            | >50           |
| C Stress at break   | 5 mm/min       | MPa                     | ISO 527-1,-2            | 50 - 60       |
| C Strain at break   | 5 mm/min       | %                       | ISO 527-1,-2            | 80 - 110      |
| C Charpy impact strength  | 23 °C          | kJ/m <sup>2</sup>       | ISO 179-1eU             | N             |
| Izod notched impact strength  | 23 °C          | kJ/m <sup>2</sup>       | ISO 7391/b.o. ISO 180-A | 15 (C)        |
| C Puncture maximum force  | 23 °C          | N                       | ISO 6603-2              | 4800 - 5100   |
| C Puncture energy   | 23 °C          | J                       | ISO 6603-2              | 43 - 50       |
| <b>Thermal properties</b>   |                |                         |                         |               |
| C Vicat softening temperature   | 50 N; 50 °C/h  | °C                      | ISO 306                 | 144           |
| C Burning behavior UL 94 (1.5 mm) [UL recognition]                    |                | Class                   | UL 94                   | V-2 (WT)      |
| C Burning behavior UL 94 [UL recognition]                             | 3.0 mm         | Class                   | UL 94                   | HB (WT)       |
| Burning behavior UL 94 [UL recognition]                               | 0.75 mm        | Class                   | UL 94                   | V-2 (WT)      |
| Burning behavior UL 94 [UL recognition]                               | 2.7 mm         | Class                   | UL 94                   | HB (WT)       |
| Relative temperature index (Tensile strength) [UL recognition]        | 1.5 mm         | °C                      | UL 746B                 | 125           |
| Relative temperature index (Tensile impact strength) [UL recognition] | 1.5 mm         | °C                      | UL 746B                 | 115           |
| Relative temperature index (Electric strength) [UL recognition]       | 1.5 mm         | °C                      | UL 746B                 | 125           |
| Glow wire test (GWFI)   | 0.75 mm        | °C                      | IEC 60695-2-12          | 850           |
| Glow wire test (GWFI)   | 3.0 mm         | °C                      | IEC 60695-2-12          | 960           |
| <b>Other properties (23 °C)</b>                                       |                |                         |                         |               |
| C Density   |                | kg/m <sup>3</sup>       | ISO 1183-1              | 1240 - 1340   |
| <b>Material specific properties</b>                                   |                |                         |                         |               |
| Light reflection  | 4 mm           | %                       | JIS 8722                | 96 - 97       |
| <b>Processing conditions for test specimens</b>                       |                |                         |                         |               |
| C Injection molding-Melt temperature                                  |                | °C                      | ISO 294                 | 280           |
| C Injection molding-Mold temperature                                  |                | °C                      | ISO 294                 | 80            |

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Impact properties: N = non-break, P = partial break, C = complete break



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## Disclaimer

### Typical value

These values are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

### General

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### Disclaimer Non Medical Grade

This product is not designated for the manufacture of a medical device or of intermediate products for medical devices (1). [This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro. 1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document. 2) As defined in Commission Regulation (EU) 1935/2004.

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