

Makroblend® M525

Preliminary Datasheet / Special grades

(PC+PBT) Blend, impact modified, easy release, injection molding grade. Makroblend M525 offers an exceptional low-temperature impact strength, good flowability and excellent chemical resistance. Manufactured according to GMP, tested only according to ISO 10993-5 and ISO 10993-10 for contact with uncompromised skin only; for questions regarding biocompatibility we ask for an email inquiry under plastics@covestro.com.

ISO Shortname

| Property | Test Condition | Unit | Standard | typical Value |
|---|--|-------------------------|----------------|---------------|
| Rheological properties | | | | |
| C Melt volume-flow rate | 260 °C; 5 kg | cm ³ /10 min | ISO 1133 | 21 |
| Molding shrinkage, parallel/normal | Value range based on general practical experience (600bar) | % | b.o. ISO 2577 | 0.7 - 0.9 |
| Post- shrinkage, parallel/normal | Value range based on general practical experience (1h; 90°C) | % | b.o. ISO 2577 | 0.1 - 0.2 |
| Mechanical properties (23 °C/50 % r. h.) | | | | |
| C Tensile modulus | 1 mm/min | MPa | ISO 527-1,-2 | 2000 |
| C Yield stress | 50 mm/min | MPa | ISO 527-1,-2 | 55 |
| C Yield strain | 50 mm/min | % | ISO 527-1,-2 | 4.5 |
| C Nominal strain at break | 50 mm/min | % | ISO 527-1,-2 | > 50 |
| Stress at break | 50 mm/min | MPa | ISO 527-1,-2 | 45 |
| Flexural modulus | 2 mm/min | MPa | ISO 178 | 2000 |
| Flexural stress at 3.5 % strain | 2 mm/min | MPa | ISO 178 | 65 |
| Izod notched impact strength | 23 °C | kJ/m ² | ISO 180-A | 60 |
| Izod notched impact strength | -20 °C | kJ/m ² | ISO 180-A | 45 |
| Thermal properties | | | | |
| C Temperature of deflection under load | 1.80 MPa | °C | ISO 75-1,-2 | 75 |
| C Temperature of deflection under load | 0.45 MPa | °C | ISO 75-1,-2 | 100 |
| Vicat softening temperature | 50 N; 120 °C/h | °C | ISO 306 | 122 |
| Coefficient of linear thermal expansion, parallel | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 0.9 |
| Coefficient of linear thermal expansion, transverse | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 0.9 |
| Electrical properties (23 °C/50 % r. h.) | | | | |
| C Volume resistivity | | Ohm-m | IEC 60093 | >1E14 |
| C Surface resistivity | | Ohm | IEC 60093 | >1E15 |
| C Comparative tracking index CTI | Solution A | Rating | IEC 60112 | 225 |
| Comparative tracking index CTI M | Solution B | Rating | IEC 60112 | 100 |
| Other properties (23 °C) | | | | |
| C Density | | kg/m ³ | ISO 1183-1 | 1220 |

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.

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.

General (limited Biocompatibility)

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 production 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 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 standpoint. Such testing has not necessarily been done by us. The biocompatibility testing referenced above cannot assure the biocompatibility of final or intermediate products made from Bayer products or the suitability of such products for their use in a Medical Application, i.e., the test data cannot be used to conclude that any medical devices manufactured from the Bayer products meet the necessary requirements of ISO Standard 10993-1. It is the sole responsibility of the manufacturer of final end-use product to conduct all necessary tests (including biocompatibility tests) and inspections and to evaluate the final product under actual end-use requirements. 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.

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