

## BASIC INFORMATION

**PRODUCT NAME:** FILAMENT 3D R-ABS 1.75mm

R-ABS is reused in the production proces acrylonitrile-butadiene-styrene filament for FFF/FDM 3D printing. The supplied filament is wound on a spool or without a spool (ReFill version), vacuum sealed in a PA/PE bag with moisture absorber and packaged in a cardboard box. The product is designed for use with 3D printers using FDM technology. It should be used in a well ventilated room to avoid exposure to fume

**PRODUCT DESCRIPTION:** emissions during printing. It is important to avoid direct contact with hot printer components, which can lead to burns. Filament should be stored in a dry place, in a closed container and away from children. It is recommended to use the filament within the recommended printing temperature range for optimum results. Dispose of waste filament in accordance with local regulations. The product has been designed with safety in mind and meets all relevant standard for consumer use.

**STORAGE:** Store in dry area. Store in a closed container.

## PRODUCT PARAMETERS

| PARAMETER               | VALUE   |
|-------------------------|---------|
| Filament diameter [mm]  | 1.75    |
| Diameter tolerance [mm] | +/-0,05 |
| Oval tolerance [mm]     | +/-0,02 |

## RECOMMENDED PRINTING PARAMETERS

| PARAMETER                      | VALUE       |
|--------------------------------|-------------|
| 3D printing temperature [C]    | 230-270     |
| Heated bed [C]                 | 80-110      |
| Cooling fan [%]                | 0-50        |
| Closed chamber                 | recommended |
| Closed chamber temperature [C] | 50-80       |
| Drying conditions [C/h]        | 80-90/3-4   |

## PHYSICAL PARAMETERS OF THE MATERIAL

| PARAMETER  | VALUE | UNIT              | TEST METHOD          |
|--|-------|-------------------|----------------------|
| Gęstość/Density  | 1,05  | g/cm <sup>3</sup> | ISO 1183             |
| VICAT  | 86    | °C                | ISO 306              |
| Moduł sprężystości/Tensile modulus   | 2048  | MPa               | ISO 527              |
| Wytrzymałość na rozciąganie przy granicy plastyczności/Tensile strength at yield   | 39    | MPa               | ISO 527              |
| Wydłużenie przy rozciąganiu przy granicy plastyczności/Tensile elongation at yield | 2,25  | %                 | ISO 527              |
| Moduł zginania/Flexural modulus  | 2061  | MPa               | ISO 178 (2,0 mm/min) |
| Wytrzymałość na zginanie/Flexural strength   | 60    | MPa               | ISO 178 (2,0 mm/min) |
| Udarność metodą Charpy'ego (z korbem)/Charpy impact strength (notched)             | 15    | kJ/m <sup>2</sup> | ISO 179/1            |
| Temperatura ugięcia pod obciążeniem/Temperature of deflection under load           | 90    | C                 | ISO 75-2/A           |
| Klasa palności/Flame rating  | HB    | -                 | UL94 (1,5 mm)        |
| Klasa palności/Flame rating  | HB    | -                 | UL94 (3,0 mm)        |

The values above have been measured using standard test specimens made of non-colored material at room temperature. The figures should be considered as indicative values only. Actual properties of R-ABS parts can be affected by the printing parameters, design of the model, ambient conditions, application of the printout etc. It is essential that users test our products to determine whether they are suitable for their intended use. ROSA PLAST Sp. z o.o. accepts no liability for any health detriment or material losses or any other losses related to the use of the material. Additional documents, certificates and detailed technical information can be provided on special request.

