BETTER BASICS
LABORBEDARF

INFORMATION

ON THE RESISTANCE OF THE SMARTRACK®

IN THE FACE OF AGGRESSIVE MEDIA

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THE RESISTANCE OF THE SMARTRACK®

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Photo: Example of a SmartRack® module:
SmartRack® holder for laboratory thread bottles

Due to its good resistance to most aggressive media in the laboratory, the SmartRack® is well equipped for use in everyday laboratory life, as most contaminations are short-lived and are eliminated immediately for the purpose of proper occupational safety.

If prolonged exposure to aggressive media occurs, the component surface may become discoloured, although this will not affect the functionality of the components. In addition, due to the modularity of the SmartRack®, it is always possible to replace individual modules or components if necessary.

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Resistance of the SmartRack® to aggressive media

The SmartRack® consists of a frame, the slot rails and modules suspended in the slot rails. Three different types of materials are used in the SmartRack®:

1. **Black powder-coated aluminium parts (frames, metal components of the tub and the hybrid modules)**

   These components are aluminium parts, which are protected by a powder coating of epoxy resin. The powder coating is stable against a large number of halogenated and halogen-free solvents from the laboratory sector. However, prolonged exposure of the solvents to the powder coating should be avoided. The powder coating is stable against short-term contact with acids/bases. The components are completely autoclavable.

2. **Black anodised nut rails**

   The slot rails are black anodised aluminium parts which are resistant to halogenated and halogen-free solvents. Aggressive acids/bases can destroy the anodising layer. The components are completely autoclavable.

3. **Green plastic parts (feet, slide rail handles, modules, plastic components of the tub and hybrid modules)**

   These components are 3D-printed (laser-sintered) components made from the high-performance plastic polyamide-12 (PA12). The components are stable to halogenated and halogen-free solvents such as, for example, chloroform, dichloromethane, chlorobenzene, hexane, methanol, ethanol, acetone, ethyl acetate and toluene. The components are stable to most acids and bases, but strong, concentrated acids such as concentrated nitric and sulfuric acid lead to damage to the components during prolonged exposure, as with all organic materials. After prolonged exposure to aggressive media, discolouration of the components may occur, but this is only superficial and does not limit their functionality. The components are completely autoclavable.

Due to its good resistance to most aggressive media in the laboratory, the SmartRack® is well equipped for use in everyday laboratory life, as most contaminations are short-lived and are eliminated immediately for the purpose of proper occupational safety. If prolonged exposure to aggressive media occurs, the component surface may become discoloured, although this will not affect the functionality of the components. In addition, due to the modularity of the SmartRack®, it is always possible to replace individual modules or components if necessary.

Resistance of the SmartRack® to aggressive media

Overview

Components	Halogen-free solvents	Halogen-containing solvents	Weak Acids/Bases	Strong acids/bases	Autoclavable
Black powder-coated components (frames, metal components of the tub and the hybrid modules)	✓	✓	✓	✓	✓
Black anodised nut rails	✓	✓	(✓)	(✓)	✓
Green plastic parts (feet, slide rail handles, modules, plastic components of the tub and hybrid modules)	✓	✓	✓	✓	✓

Legend:

✓ Resistant

(✓) Short-term Resistant

If you have any further questions, please contact us at: contact@better-basics.de

Better Basics Laborbedarf - bespoke laboratory organisation - smart basics for laboratories

Photo: Building of the Better Basics Laborbedarf GmbH in Dresden

Contact: Dr. rer. nat. Sebastian Stein

Dr. Sebastian Stein

Sebastian Stein was born in Meissen and is now shareholder and production manager of Better Basics Laborbedarf GmbH. He completed his studies in polymer chemistry at the TU Dresden with a doctorate in the field of self-healing elastomers.

Today, he is responsible for additive manufacturing at Better Basics Laborbedarf. Here, the following 3D printing processes are currently used: SLS, FDM and SLA/DLP.

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YOU ARE INTERESTED IN OUR PRODUCTS OR YOU HAVE FURTHER QUESTIONS?

Get in touch with us:
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You can also find more information and news about our product innovations at
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Our request to you

A product like our SmartRack® is only as good as its users. With our roots in the Leibniz Institute for Polymer Research Dresden, our company Better Basics Laborbedarf stands for the tradition of "Made in Germany" quality. We feel in multiple aspects committed to this quality label for German companies, which stands for high innovative strength. Even beyond our product catalog, the same applies for us at Better Basics: Just contact us if you have ideas for extensions or improvements or if you notice something in your daily laboratory routine that we should optimize right away.

We want to create the best possible working environment for you in the laboratory and we are grateful for any comments and inspiration. We can jointly shape the future of laboratory work by cooperating with scientists and researchers. Just like you, we're always looking for a way to make our world a little better every day.

Impress:
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