Fundermax
For you to create

Max Resistance² – The best in its class

Max Resistance² combines the very best intrinsic qualities: extreme resistance to the most aggressive chemicals, inherent strength, long lasting durability, and an easy-to-clean surface. What's more, it opens up new design possibilities.

Permanently resistant
Max Resistance² is extremely resistant to chemical and physical abuse – thanks to Fundermax's patented technology. Created from tested and certified raw materials, compressed at high temperatures under intense pressure, the end result is a homogenous, decorative and extremely resistant panel. As it is completely uniform and joint free, it's also permanently resistant to moisture.

For extreme demands
With excellent physical properties, coupled with its ability to resist both harsh chemicals and acids that are used on open benches across all industry sectors, including, but not limited to, laboratories within: Colleges & Universities; Pharma and Biotech; Government; K–12; Clinical Research and Diagnostic; Contract Research and Contract Manufacturing Organizations (CRO & CMO); Hospitals; as well as other sectors, such as the petrochemical & food industries.

Outstanding mechanical and thermal properties

Properties tested according to EN 438	Standard requirement	Max Resistance²
Physical data		
Density DIN 52350/ISO 1183	≥ 1.35 g/cm³ (≈4.9 lb/inch³)	≥ 1.35 g/cm³ (≈.049 lb/inch³)
Thickness (e.g.) EN 438-2, point 5		10 mm (≈0.39")
Weight		13.5 kg/m² (≈2.77 lb/sqf)
Mechanical properties		
Resistance to stress abrasion EN 438-2, point 10 (Initial Point)	≥ 150 U	450 U*
Resistance to impact EN 438-2, point 21	≤ 10 mm (≈0.39")	8 mm (≈0.32")
Resistance to scratching EN 438-2, point 25	degree ≥ 3; ≥ 4 N	3 – 4 degree; 4 – 6 N
Flexural strength EN ISO 178	≥ 80 MPa	≥ 80 MPa
E-Modulus EN ISO 178	≥ 9000 MPa	≥ 9000 MPa
Thermal properties		
Dimensional stability measured at elevated temperatures with moisture change EN 438-2, point 17	≤ 0.30 length ≤ 0.60 width	0.15 length 0.3 width
Co-efficiency of thermal expansion DIN 52328	1/K	20 x 10^{-6}
Resistance to dry heat EN 438-2, point 16	4–5 [degree]	4–5 [degree]
Resistance to staining EN 438-2, point 26 (group 1-3)	4–5 [degree]	5 no visible changes, no blisters or cracks
Optical properties		
Light fastness EN 438-2, point 27	≥ 4 [level]	≥ 4 [level]
Surface resistance		10^{9} – 10^{12} Ohm

*450 U for all Uni colors, 150 U for Punto decors

Surpasses all tests
In addition to chemical resistance, mechanical strength is key when it comes to creating highly durable, long-lasting lab surfaces. This is where Max Resistance² comes into its own. Thanks to its innovative patented surface technology.

10 year warranty
Because of its superior performance, Max Resistance² comes with a 10 year extended warranty.

Perfect disinfectability
Because of its non-porous finish, Max Resistance² can be easily disinfected and doesn't support the growth of bacteria.

As a result you can confidently disinfect, knowing that you will kill > 99.99% of germs. Following a deliberate contamination with the aggressive Staphylococcus Aureus and Escherichia Coli bacterias, and subsequent disinfection[1)], it was proven that **Max Resistance² was as effective as stainless steel when it comes to disinfection.**

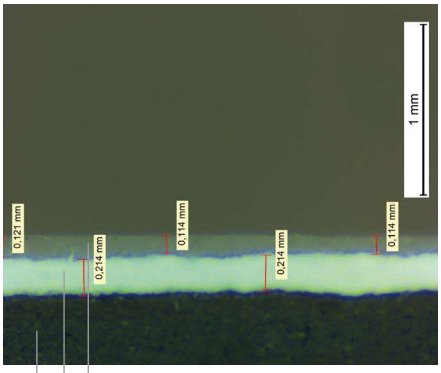
Max Resistance² – Patented surface technology

Max Resistance² offers a 25% higher impact and scratch resistance, and a 3 times higher abrasion resistance, when compared to EBC or Melamine Surfaces.

RE-technology

Exclusive 'RE-technology', developed in-house by Fundermax research scientists, is used in the production of Max Resistance² – perfecting the finish and making it ultimately resistant on both sides. In contrast to surfaces manufactured by means of Electron Beam Curing (EBC) or Melamine technology, the Max Resistance² work surface offers a significantly higher resistance to scratching, impact and abrasion, as well as disinfectants and aggressive acids. Max Resistance² sets a new standard and considerably increases the life cycle of your laboratory work surface.

Fundermax RE-Technology

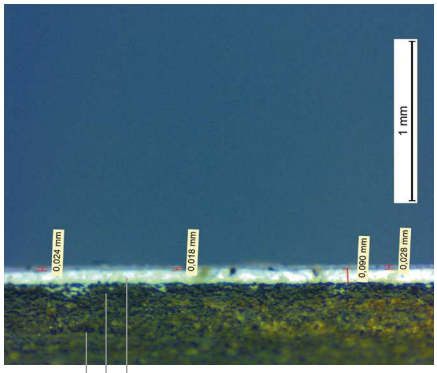


Extra thick double-hardened urethane-acrylic surface

Extra thick decor layer

HPL core (Jet-black, phenol impregnated Kraft paper)

EBC-Technology

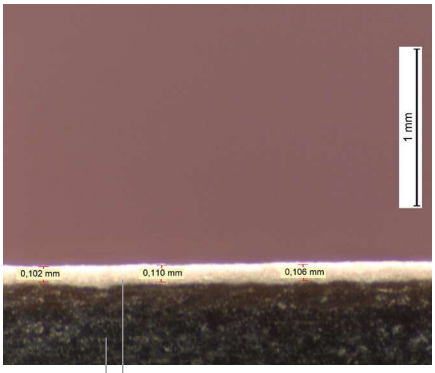


Electron beam cured (EBC) acrylic surface

Decor layer

Fibre or HPL core

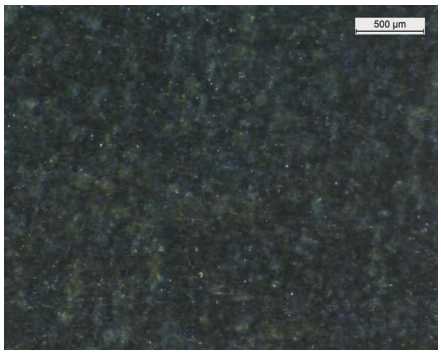
Melamine-Technology



Melamine decor surface

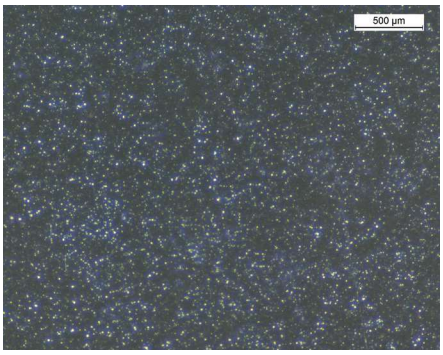
HPL core

RE-surface



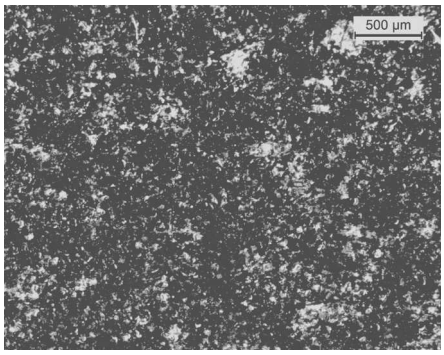
No micro-pores visible

EBC-surface



Micro-pores visible

Melamine-surface



Pores visible

Max Resistance²

Combining the very best intrinsic qualities: extreme resistance to the most aggressive chemicals, inherent strength, long lasting durability, and an easy-to-clean surface. With the unique RE surface technology, Max Resistance² is the superior work surface choice for the most extreme laboratory conditions. Available in both black and colored cores, it opens up new design possibilities that will last.

Environmentally friendly production

During the manufacture of Fundermax Compact panels, kraft paper is impregnated with resin, dried and compressed at high heat and pressure – producing highly durable and moisture resistant panels. The waste from this process is treated (by regenerative thermal oxidation) and then re-used, achieving an entirely closed production cycle.

Recycled Materials

100% of the Kraft paper used in Max Resistance² panels is made from post-consumer recycled content.

Fundermax Laboratory Work Surfaces

From furniture and facades to interior design, Fundermax is at the interface of ideas and materials. Today the company – which has a proud history spanning 130 years – stands as a global market leader and producer of high quality materials using wood and laminates. Our lasting success has been based on high quality, imaginative design, diversity and sustainable production. Our products exude a love for the natural resources of wood, creativity and inventiveness.

Max Resistance² – Maximum performance

Max Resistance² not only meets the standards set by SEFA 3, it surpasses them; the harshest chemicals applied to horizontal lab surfaces have no impact whatsoever. The surface is resistant to Hydrofluoric Acid and Sulfuric Acid.

Test procedure
The chemical resistance tests were performed in a SEFA certified laboratory according to the Test Method: SEFA 3-2010 Sec 2.1. (24hr Exposure) Detailed information and results are available in the test reports.

Results
Max Resistance² passed the SEFA 24h Exposure Test and is therefore suitable and recommended for laboratory worktops. Max Resistance² exceeds the SEFA test criteria by far without one single Level 3 rating.

Rating
0 – **No Effect** – No detectable change in the material surface.
1 – **Excellent** – Slight detectable change in color or gloss but no change in function or life of the surface.
2 – **Good** – A clearly discernible change in color or gloss but no significant impairment of surface life or function.
3 – **Fair** – Objectionable change in appearance due to discoloration or etch, possibly resulting in deterioration of function over an extended period of time.

Acceptance criteria
To be approved as laboratory grade surfaces, tested materials should receive no more than four Level 3 ratings.

Rating / Substance	0 No effect	1 Excellent	2 Good	3 Fair
Acids				
Acetic Acid 99%	●			
Dichromate Acid 5% [2]	●			
Chromic Acid 60%	●			
Formic Acid 90% [2]	●			
Hydrochloric Acid 37%	●			
Hydrofluoric Acid 48%		●		
Nitric Acid 20%	●			
Nitric Acid 30%	●			
Nitric Acid 70% [2]			●	
Phosphoric Acid 85%	●			
Sulfuric Acid 33%	●			
Sulfuric Acid 77%	●			
Sulfuric Acid 96%		●		
Sulfuric Acid 77 % Nitric Acid 70% (1:1)			●	
Bases				
Ammonium Hydroxide 28%	●			
Sodium Hydroxide 10%	●			
Sodium Hydroxide 20%	●			
Sodium Hydroxide 40%	●			
Sodium Hydroxide Flake	●			
Salts and Halogens				
Saturated Zinc Chloride	●			
Saturated Silver Nitrate	●			
Tincture of Iodine [1]		●		

Rating / Substance	0 No effect	1 Excellent	2 Good	3 Fair
Organic Chemicals				
Cresol	●			
Dimethylformamide	●			
Formaldehyde 37%	●			
Furfural[1]		●		
Gasoline	●			
Hydrogen Peroxide 30% [2]	●			
Hydrogen Peroxide 3%	●			
Phenol 90%		●		
Sodium Sulfide Saturated	●			
Solvents				
Acetone [2]	●			
Amyl Acetate	●			
Benzene	●			
Butyl Alcohol	●			
Carbon Tetrachloride	●			
Chloroform [2]	●			
Dichloracetic Acid [2]		●		
Dioxane	●			
Diethyl Ether	●			
Ethyl Acetate [1]	●			
Ethyl Alcohol	●			
Methyl Alcohol	●			
Methylene Chloride	●			
Methyl Ethyl Ketone	●			
Monochlorobenzene	●			
Napthalene	●			
Toluene	●			
Trichloroethylene	●			
Xylene [1]	●			

Test results may differ by color
[1] Result on 0082
[2] Result on 0085

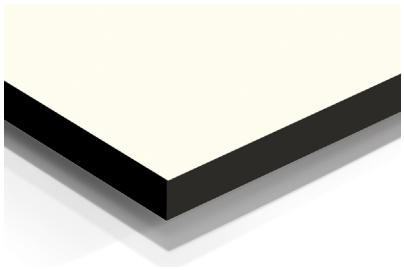
Lab Work Surfaces | Max Resistance²

Max Resistance² sets a new standard and considerably increases the life cycle of your laboratory work surface. It offers a significantly higher resistance to scratching, impact and abrasion, as well as aggressive acids, and has excellent mechanical and physical properties.

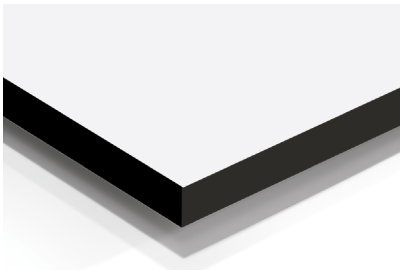
- Moisture Resistant
- Food Grade
- Perfectly disinfectable
- Double Sided
- Resistant to Thermal-shock
- Easy to Clean
- Ease of Installation
- Excellent machinability
- Heat resistant up to 180°C/360F
- Durable
- Excellent chemical resistance
- Anti-Static
- Scratch Resistant
- Impact Resistance

Surface Decor Colors

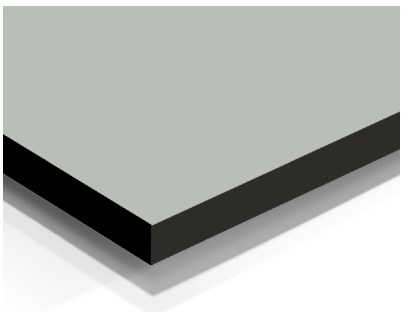
With its deep black core and double sided resistant decor, you can maximize your design and reduce waste during fabrication. Extra high resin content and careful manufacturing results in a consistent depth of color, removing the need for edge treatment.



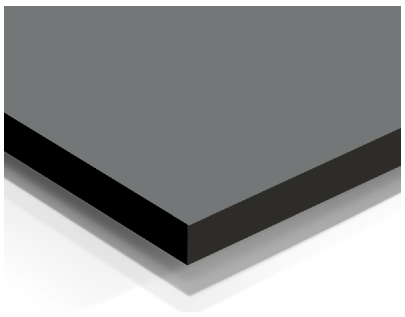
0085 White



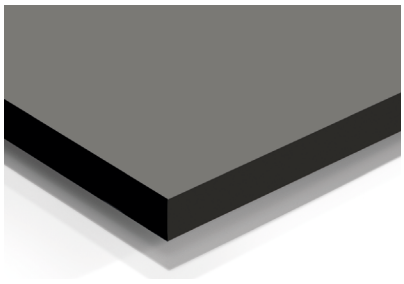
0606 Arctic White



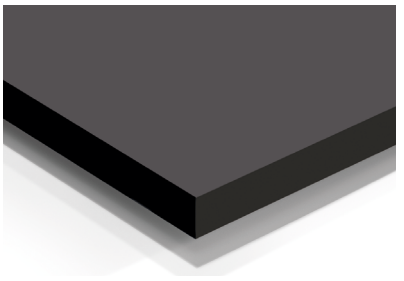
0074 Pastel Grey



0075 Dark Grey



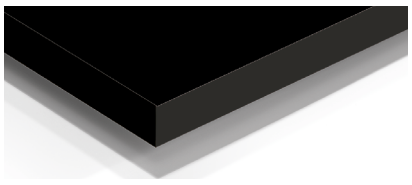
2181 Volcano Grey



0077 Charcoal

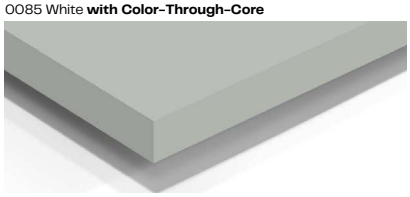
Core Colors

Some panels are available with a color through core. That means the core has the same color as the surface layer without sacrificing durability or sustainability.

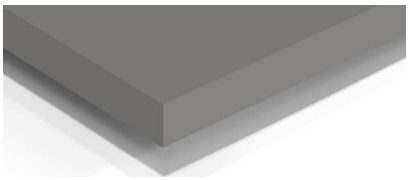


0082 Deep Black **with Color-Through-Core**

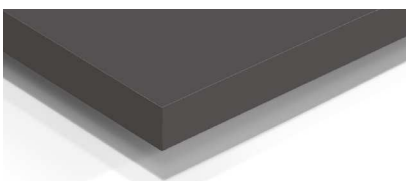
0085 White **with Color-Through-Core**



0074 Pastel Grey **with Color-Through-Core**



2181 Volcano Grey **with Color-Through-Core**



0077 Charcoal **with Color-Through-Core**

PEFC™ PEFC/06-35-246

FSC www.fsc.org FSC® C101962 The mark of responsible forestry

SEFA MEMBER

GREENGUARD PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818 GOLD

mindful MATERIALS

THIRD-PARTY VERIFIED EPD ISO 14025 and EN 15804 Institut Bauen und Umwelt e.V.

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Color variations from the original decors are caused by the technical limitations of the printing process. Please request an original sample.