## PHENOLIC RESIN WORK SURFACES

## PRODUCT DEFINITION

Manufactured using a unique Electron Beam Curing (EBC) technology, Phenolic Resin Work Surfaces are easy to clean and show a high resistance to a large number of aggressive chemicals. It also has inherent antibacterial properties without the addition of microbial additives. Phenolic Resin Work Surfaces provide an ideal choice in environments where hygiene, avoidance of contamination, sustainability, ergonomics and safety are of importance. Phenolic Resin Work Surfaces are extensively used in a wide variety of lab environments worldwide, including chemical, physical, analytical and microbiological laboratories.


Black, White or Gray surface. Core is black.


EDGE PROFILE

## SPECIFICATIONS:

Thickness: 1" std.
Maximum size: $60^{\prime \prime} \times 120^{\prime \prime}$ or $73^{\prime \prime} \times 96^{\prime \prime}$

## RESISTANCE TO CHEMICALS:

Resistant to diluted strong bases and acids. Easy to clean and disinfect, given its resistance to common lab cleaners:

- Acetone
- Toluene
- Etyhlic and Methylic Alcohol
- Dimethylformamide -DMF
- Dimethylsulphoxide -DMSO
- Tetrahydrofuran -THF
- Turpentine
- Methyl Chetone
- Ammonia
- Caustic Soda
- Potassium Hydroxide, up to $10 \%$


## CARE AND MAINTENANCE

Surface can be cleaned with soapy water and common organic solvents (alcohol, benzine, acetone, methyl ethyl keytone, perchloroethylene). Avoid use of detergents with high concentrations of strong acids or bases (i.e. formic, hydrochloric, sulfuric and nitric acid).

Do not use abrasive pads or powders which may cause damage

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Decorative high-pressure compact laminates according to EN 438-4:2005 of thicknesses of $6 \mathrm{~mm}( \pm 1 / 4 \mathrm{in}$ ) or greater for interior use. Sheets consisting of layers of wood-based fibres (paper and/or wood) impregnated with thermosetting resins and surface layer(s) on one or both sides, having decorative colours or designs. The surface layers are impregnated with melamine based resins. These components are bonded together with simultaneous application of heat ( $\geq 150^{\circ} \mathrm{C} / \geq 302^{\circ} \mathrm{F}$ ) and high specific pressure (> 7 MPa ) to obtain a homogeneous non-porous material with increased density and integral decorative surface They are available in the Standard grade (CGS) and in the Fire-Retardant grade (CGF).

| Properties | Test method | Property or attribute | Unit |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Grade: CGS |
|  |  |  |  | Standard: EN 438-4 |
|  |  |  |  | Colour/Decort All |
|  |  |  |  |  |
| Surface quality |  |  |  |  |
|  |  | Spots, dirt, similar surface defects | $\mathrm{mm}^{2} / \mathrm{m}^{2}$ | $\leq 1$ |
| Surf | EN 438-2 : 4 | Spots, dirt, similar surface defects | $\mathrm{in}^{2} / \mathrm{ft}^{2}$ | $\leq 0.0001$ |
|  | EN |  | $\mathrm{mm} / \mathrm{m}^{2}$ | $\leq 10$ |
|  |  | Fibres, hairs \& scratches | in/ $/ \mathrm{t}^{2}$ | $\leq 0.036$ |
| Dimensional tolerances |  |  |  |  |
|  |  |  |  | $6.0 \leq t<8.0:+/-0.40$ |
|  |  |  |  | $8.0 \leq t<12.0:+/-0.50$ |
|  |  |  | mm | $12.0 \leq t<16.0:+/-0.60$ |
|  |  |  |  | $16.0 \leq t<20.0:+/-0.70$ |
|  |  | Thic |  | $20.0 \leq t \leq 25.0:+/-0.80$ |
|  |  |  |  | $0.2362 \leq t<0.3150:+/-0.0157$ |
|  |  |  |  | $0.3150 \leq t<0.4724:+/-0.0197$ |
|  |  |  | in | $0.4724 \leq t<0.6299:+/-0.0236$ |
|  |  |  |  | $0.6299 \leq t<0.7874:+/-0.0275$ |
|  |  |  |  | $0.7874 \leq t \leq 0.9842:+/-0.0315$ |
|  | EN | Flatness | $\mathrm{mm} / \mathrm{m}$ | $\leq 2$ |
|  | EN | Flatness | $\mathrm{in} / \mathrm{ft}$ | $\leq 0.024$ |
|  | EN 438-2 : 6 | Length \& width | mm | + $5 /-0$ |
|  | EN 438-2.6 | Lengt \& widm | in | + 0.1968/-0 |
|  | EN 438-2 : 7 | Straightness of edges | $\mathrm{mm} / \mathrm{m}$ | $\leq 1$ |
|  | EN 438-2 : 7 | Straightness of edges | $\mathrm{in} / \mathrm{ft}$ | $\leq 0.012$ |
|  |  |  | mm | $2550 \times 1860=$ max. difference between diagonals $(x-y)=4$ |
|  |  |  | mm | $3050 \times 1530=$ max. difference between diagonals $(x-y)=4$ |
|  | Trespa Standard | Squareness | in | $100.39 \times 73.23=$ max. difference between diagonals $(x-y)=0.1575$ |
|  |  |  | in | $120.08 \times 60.24=$ max. difference between diagonals $(x-y)=0.1575$ |
| Physical properties |  |  |  |  |
| Resistance to surface wear | EN 438-2 : 10 | Wear resistance - Revolutions (min) | Initial point | $\geq 150$ |
|  |  | Wear resistance - Revolutions (min) | Wear value | $\geq 350$ |
| Resistance to impact by large diameter ball | EN 438-2 : 21 | Indentation diameter - $6 \leq t \mathrm{~mm}$ with drop height 1.8 m | mm | $\leq 10$ |
| Resistance to scratching | EN 438-2 : 25 | Force | Rating (min) | $\geq 3$ |
| Resistance to dry heat ( $160^{\circ} \mathrm{C} / 320^{\circ} \mathrm{F}$ ) | EN 438-2 : 16 | Appearance | Rating (min) | $\geq 4$ |
| Resistance to wet heat ( $100^{\circ} \mathrm{C} / 212^{\circ} \mathrm{F}$ ) | EN 12721 | Appearance | Rating (min) | $\geq 4$ |
|  |  | Mass increase (\% max) | $t \geq 6 \mathrm{~mm}$ | $\leq 1$ |
| Resistance to immersion in boiling water | EN 438-2 : 12 | Thickness increase (\% max) | $t \geq 6 \mathrm{~mm}$ | $\leq 1$ |
|  |  | Appearance | Rating (min) | $\geq 4$ |
| Dimensional stability at elevated | EN 438-2 : 17 | Cumulative dimensional change | Longitudinal \% | $\leq 0.30$ |
| temperature | EN 438-2. 17 | Cumularive dimensional change | Transversal \% | $\leq 0.60$ |
| Resistance to staining | EN 438-2 : 26 | Appearance - Rating (min) | Group 1 \& 2 | 5 |
| Resistance to staining | EN 438-2. 26 | Appearance - Raling (min) | Group 3 | 4 |
| Light fastness (xenon arc) | EN 438-2 : 27 | Contrast (Wool scale) | ASTM G53-91 (314-400nm) | $\geq 6$ |
| Resistance to water vapour | EN 438-2 : 14 | Appearance | Rating (min) | $\geq 4$ |
| Resistance to cigarette burns | EN 438-2 : 30 | Appearance | Rating (min) | $\geq 3$ |
| Resistance to crazing | EN 438-2 : 24 | Appearance | Grade (min) | $\geq 4$ |
| Modulus of elasticity | EN ISO 178 | Stress | MPa | $\geq 9000$ |
| Flexural strength | EN ISO 178 | Stress | MPa | $\geq 100$ |
| Tensile strength | EN ISO 527-2 | Stress | MPa | $\geq 70$ |
| Density | EN ISO 1183 | Density | $\mathrm{g} / \mathrm{cm}^{3}$ | $\geq 1.35$ |
|  |  |  |  | $6 \mathrm{~mm}: \geq 2000$ |
| Resistance to fixings | ISO 13894-1 | Pull out strength | N | $8 \mathrm{~mm}: \geq 3000$ |
|  |  |  |  | $\geq 10 \mathrm{~mm}: \geq 4000$ |
| Fire performance |  |  |  |  |
| Europe |  |  |  |  |
|  |  | Classification $\dagger \geq 6 \mathrm{~mm} / 0.2362$ in | Euroclass | B-s2, d0 |
| Reaction to Fire | EN 13501-1 | Classification $\dagger \geq 8 \mathrm{~mm} / 0.3150$ in (Metal Frame) | Euroclass | D-s2, d0 B-s1, d0 |
| North America |  |  |  |  |
|  |  | Classification | Class | B A |
| Material Surface Burning Characteristics $\square$ | ASTM E84/UL 723 | Flame Spread Index | FSI | 26-75 0-25 |
|  |  | Smoke Developed Index | SDI | 0-450 0-450 |
| Other properties |  |  |  |  |
| Realease of formaldehyde | EN 717-2 | Classification | Class | E1 |

