

SURFORMA® COMPACTS

Standard and Fire Retardant Compacts

DESCRIPTION

SURFORMA® decorative Compacts, according to EN 438, are a robust material for indoor surfaces, either horizontal or vertical. Its double-sided decorative panels meet the most demanding specifications being capable to endure high content of moisture and impact. The products meet the stringent requirements for hygiene, fire resistance, humidity resistance and mechanical properties. The surface of the laminate is antibacterial, validated according to Japanese regulation JIS Z 2801.

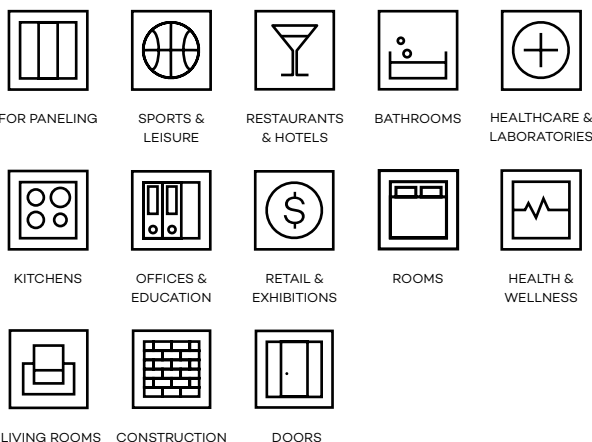
SURFORMA® Compact materials are available in a variety of colours, patterns and surface textures, providing extensive options for architects and designers.

Please check offer & service brochure for information on sizes and thicknesses available.

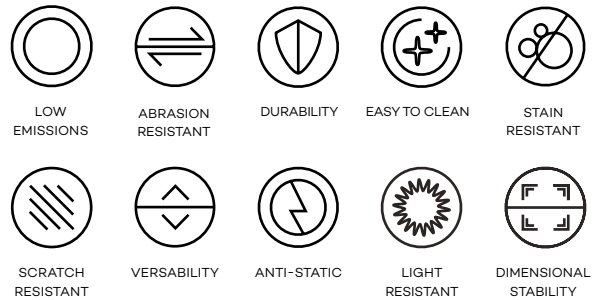
APPLICATIONS

SURFORMA® Compacts are intended for applications to indoor horizontal or vertical surfaces where design, appearance, quality, durability, mechanical resistance and dimensional stability are important features.

SURFORMA® Compacts are the best choice for wall cladding, partitions, doors, cubicles, lockers, laboratory bench tops and various self-supporting components in construction, transport industries and public spaces with high levels of circulation.



PROPERTIES



RECOMMENDATIONS

SURFORMA® compacts should be stored properly so that they are protected from moisture, humidity and direct sunlight. The materials should be carried as described in the Material Safety Data Sheet and there is no need to apply preventive special measures. We recommend the use of specific gloves while handling SURFORMA®'s Compact materials.

SURFORMA® Compacts require no special maintenance because of their durable, hygienic and waterproof surface. Their surface can be cleaned with warm water followed by wiping with a paper towel or soft cloth. Persistent contamination can usually be eliminated with non-abrasive household cleaners. They are resistant to most solvents and chemicals used daily at home.

As Compact materials are classified as non-hazardous, no additional product description labels are needed. They are cured materials and chemically inert. REACH classification does not apply to them.

SURFORMA® Compacts can be brought to controlled waste disposal sites according to current national and/or regional regulations.

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GENERAL FEATURES

| PROPERTIES | TEST METHOD | UNIT (MAX OR MIN) | CGS | CGF | |
|---|-------------|--|---------------------------------|-----------|-----|
| Dimensional tolerance requirements (EN 438-2:2016, Clause No.) | | | | | |
| Thickness | EN 438-2:5 | mm (max. variation) | $2.0 \leq t < 3.0$ | ± 0.20 | |
| | | | $3.0 \leq t < 5.0$ | ± 0.30 | |
| | | | $5.0 \leq t < 8.0$ | ± 0.40 | |
| | | | $8.0 \leq t < 12.0$ | ± 0.50 | |
| | | | $12.0 \leq t < 16.0$ | ± 0.60 | |
| | | | $16.0 \leq t < 20.0$ | ± 0.70 | |
| | | | $20.0 \leq t \leq 25.0$ | ± 0.80 | |
| Length and width | EN 438-2:6 | mm | + 10/- 0 | | |
| Edges straightness | EN 438-2:7 | mm/m (max. deviation) | 1.5 | | |
| Edges squareness | EN 438-2:8 | mm/m (max. deviation) | 1.5 | | |
| Flatness | EN 438-2:9 | mm/m (max. deviation) | $2.0 \leq t < 6.0$ | 8.0 mm /m | |
| | | | $6.0 \leq t < 10.0$ | 5.0 mm /m | |
| | | | $10.0 \leq t$ | 3.0 mm /m | |
| General Requirements | | | | | |
| Resistance to surface wear | EN 438-2:10 | Revolutions (min.) | Initial Point | 150 | |
| Resistance to immersion in boiling water | EN 438-2:12 | Appearance, rating (min.) | All finishes | 4 | |
| | | Mass increase % (max) | $2.0 \leq t < 5.0$ | 5.0 | 7.0 |
| | | | $t \geq 5.0$ | 2.0 | 3.0 |
| | | Thickness increase % (max) | $2.0 \leq t < 5.0$ | 6.0 | 9.0 |
| | | | $t \geq 5.0$ | 2.0 | 6.0 |
| Edge, rating (min) | | All thickness | 3 | 3 | |
| Resistance to water vapour | EN 438-2:14 | Appearance, rating (min.) | All finishes | 4 | |
| Resistance to dry heat (160 °C) | EN 438-2:16 | Appearance, rating (min.) | All finishes | 4 | |
| Dimensional stability at elevated temperature | EN 438-2:17 | Cumulative dimensional change % (max.) | $2.0 \leq t < 5.0$ Longitudinal | 0.40 | |
| | | | $2.0 \leq t < 5.0$ Transversal | 0.80 | |
| | | | $t \geq 5.0$ Longitudinal | 0.30 | |
| | | | $t \geq 5.0$ Transversa | 0.60 | |
| Resistance to wet heat (100 °C) | EN 438-2:18 | Appearance, rating (min.) | All finishes I | 4 | |

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| PROPERTIES | TEST METHOD | UNIT (MAX OR MIN) | CGS | CGF |
|---|---------------|-----------------------------------|----------------------------|--------|
| Resistance to impact by small diameter ball | EN 438-2:21 | Drop height, mm (min.) | $2.0 \leq t < 6.0$ | 1400 |
| | | | $t \geq 6.0$ | 1800 |
| Resistance to crazing | EN 438-2:24 | Appearance (min.) | Grade | 4 |
| Resistance to scratching | EN 438-2:25 | Force, rating (min.) | Smooth / textured finishes | 2 / 3 |
| Resistance to staining | EN 438-2:26 | Appearance, rating (min.) | Groups 1 & 2 / Group 3 | 5 / 4 |
| Light fastness (xenon arc) | EN 438-2:27 | Contrast | Grey scale rating | 4 to 5 |
| Flexural Modulus | EN ISO 178 | Stress, MPa (min.) | Longitudinal & Transversal | 9000 |
| Flexural Strength | EN ISO 178 | Stress, MPa (min.) | Longitudinal & Transversal | 80 |
| Density | EN ISO 1183-1 | Density, g/cm ³ (min.) | | 1.35 |

Typical EN 13501-1 classifications of Compacts in the field of building construction

In Europe, laminate panels intended for construction applications are tested in accordance with EN 13823 [1] (SBI test) and EN ISO 11925-2 [2] (Small-burner test), and the resulting reaction-to-fire performance is expressed in accordance with EN 13501-1

| | |
|----------------|-------------------|
| CGF \geq 6mm | B-s2,d0 or better |
| CGF < 6mm | C-s2,d0 or better |
| CGS | D-s2,d0 or better |

Additional requirements for reaction to fire - Type F Compacts

For applications other than construction, test methods and specifications can vary from one country to another. Below some examples of how Compacts typically relate to some of the more common European test methods.

| | | | |
|----------------------------|--------------------|---|--|
| Smoke density and toxicity | NF F 16-101 | Typical performance level (railway rolling stock) | F2 or better |
| Railways applications | EN 45545-2 | Typical performance level | Depending on the application and on the vehicle category |
| Transport applications | Directive 95/28/EC | Typical performance level | |

SURFORMA® Laminates are classified in accordance with EN 438 – Sheets based on thermosetting resins (Usually called Laminates) – Part 4: Classification and specifications for compact laminates of thickness 2 mm and greater. For more information about these properties, please refer to the corresponding Technical Datasheet.

The use of SURFORMA® laminates can contribute to the achievement of up to 2 LEED claims:

- The product contains recycled materials and can contribute to obtain LEED credits under MR Credit 4.
- Depending on the location of the construction project, the product can meet the requirements for materials extracted and manufactured regionally and contribute to obtaining LEED credits under MR Credit 5.

The information given in this TDS is correct at the time of publication (0620 EN)
The Company reserves the right to change specifications at any time without prior notification.

CERTIFICATIONS

