

# LAMICOLOR®

## LAMCO HPL COMPACT - TUTTOCOLORE (BCS)

Self-supporting material (from 2 mm) coloured on the surface and in the whole thickness, consisting of decorative surface layers and a core of cellulosic fibrous layers impregnated with aminoplastic thermosetting resins; all bonded together by means of high pressure ( $\geq 5\text{MPa}$ ) and heat ( $\geq 120^\circ\text{C}$ ). This material is produced in conformity to EN 438-9.

| PROPERTY                                      | TEST METHOD<br>(EN 438: 2005) | PROPERTY OR<br>ATTRIBUTE                            | UNIT                                 | VALUE  |
|---|-------------------------------|---|--------------------------------------|--|
| Thickness                                     | EN 438-2.5                    | thickness (t)                                       | mm                                   | $2,0 \leq t < 3,0 \quad \pm 0,25$<br>$3,0 \leq t < 5,0 \quad \pm 0,40$<br>$5,0 \leq t < 8,0 \quad \pm 0,50$<br>$8,0 \leq t < 12,0 \quad \pm 0,70$<br>$12,0 \leq t < 16,0 \quad \pm 0,80$ |
| Flatness                                      | EN 438-2.9                    | maximum deviation                                   | mm/ml                                | $12,0 \quad (2,0 \leq t < 6,0)$<br>$8,0 \quad (6,0 \leq t < 10,0)$<br>$5,0 \quad (10,0 \leq t)$  |
| Resistance to surface wear                    | EN 438-2.10                   | wear resistance                                     | rev                                  | $IP \geq 150$<br>$A \geq 350$  |
| Resistance to immersion in boiling water(1)   | EN 438-2.12                   | mass increase                                       | %                                    | $\leq 5 \quad (2 \leq t < 5)$<br>$\leq 3 \quad (5 \leq t)$   |
|   |                               | thickness increase                                  | %                                    | $\leq 6 \quad (2 \leq t < 5)$<br>$\leq 4 \quad (5 \leq t)$   |
|   |                               | appearance gloss finish<br>appearance othr finishes | rating                               | $\geq 3$<br>$\geq 4$   |
| Resistance to water vapour                    | EN 438-2.14                   | appearance gloss finish<br>appearance othr finishes | rating                               | $\geq 3$<br>$\geq 4$   |
| Resistance to dry heat (180°C)                | EN 438-2.16                   | appearance gloss finish<br>appearance othr finishes | rating                               | $\geq 3$<br>$\geq 4$   |
| Dimensional stability at elevated temperature | EN 438-2.17                   | cumulative dimensional change                       | %<br>L=longitudinal<br>T=transversal | $(2 \leq t < 5)$<br>$L \leq 0,60$<br>$T \leq 1,00$   |
|   |                               |   |                                      | $(5 \leq t)$<br>$L \leq 0,50$<br>$T \leq 0,80$   |
| Resistance to crazing                         | EN 438-2.24                   | appearance  | rating                               | surface $\geq 4$<br>core $\geq 3^{(1)}$  |
| Resistance to scratching <sup>(2)</sup>       | EN 438-2.25                   | appearance gloss finish                             | rating                               | $\geq 2$   |
|   |                               | appearance othr finishes                            |                                      | $\geq 3$   |
| Resistance to staining                        | EN 438-2.26                   | appearance groups 1-2<br>appearance group 3         | rating                               | $5$<br>$\geq 4$  |
| Light fastness <sup>(3)</sup>                 | EN 438-2.27                   | contrast  | grey scale rating                    | surface $\geq 4$<br>core $\geq 3$  |
| Resistance to cigarette burns                 | EN 438-2.30                   | appearance  | rating                               | $\geq 3$   |
| Flexural strength                             | EN ISO 178                    | stress  | MPa                                  | $\geq 80$  |
| Flexural modulus                              | EN ISO 178                    | stress  | MPa                                  | $\geq 9.000$   |
| Tensile strength                              | EN ISO 527-2                  | stress  | MPa                                  | $\geq 60$  |
| Density                                       | EN ISO 1183-1                 | density   | gr/cm <sup>3</sup>                   | $\geq 1,40$  |

(1) The moderate cracks lines run along all the edge of the specimen.

(2) Resistance to scratching is depending from finish and colour.

(3) Extraneous darkening and/or photocromism are due to the shock effect of accelerated exposure and are not characteristics of natural exposure.

N.B. The technology and type of pigments used may be the cause of colour difference to vary the production lot. Furthermore, the decorative surface in the LAMCO<sup>HPL</sup> COMPACT - TUTTOCOLORE version, could have a slight different tonality from decorative surface with the same colour code number of the other Lamicolor products. This slight difference is due to the different colouring of the core of the laminate.

### ADVICE FOR MACHINING AND APPLICATION OF LAMCO<sup>HPL</sup> COMPACT - TUTTOCOLORE

Specific recommendations required for the machining and installation of LAMCO<sup>HPL</sup> COMPACT - TUTTOCOLORE are given below :

**Transport and Storage.** For both standard and cut-to-size panels, LAMCO<sup>HPL</sup> COMPACT - TUTTOCOLORE must be laid on a flat horizontal surface (vertical storage can result in permanent deformation), in a closed and dry room with 40-65% relative humidity and a temperature between 10° and 30° C.

**Cutting.** The cutting of panels should only be carried out with fixed circular saws, accurately adjusting the blade height to avoid chipping the bottom edge of the panel. For optimal results, use a scoring blade together with the cutting blade. The panel should always be cut so that the longest edge follows the longitudinal direction of the fiber. Portable saws and belt saws are not recommended for this operation. The right angle cutting must be absolutely avoided.

**Drilling.** It is recommend that holes be drilled with a diameter approx. 2,0 mm larger than that of the screws. It is very important to ensure that the holes be drilled accurately in terms of both size and quality, so as to avoid the spread of cracks resulting from the holes themselves. There is always a risk that such cracks may arise from a slight dimensional variation of the panels, which can occur following normal changes in ambient temperature and humidity.

**Fretworking.** It is vital to cut rounded edges with great care (minimum 5 mm radius) so as to avoid chipping on both sides of the panel. Bad fretwork or bad internal cuts will inevitably lead to cracking of the material.

**Application.** According to temperature and humidity, LAMCO<sup>HPL</sup>COMPACT - TUTTOCOLORE can shrink or expand, both in longitudinal and transversal directions.

We therefore recommend that the LAMCO<sup>HPL</sup>COMPACT - TUTTOCOLORE, should always be left to condition in a room at approx. 20° C temperature and 50 % relative humidity before applying it. In any case due to the sensitivity of this product to dry heat and humidity, we advise not to use it in applications with such characteristics. It is advisable to avoid using LAMCO<sup>HPL</sup>COMPACT - TUTTOCOLORE near lights or any other source of heat which could cause a build up of heat in certain parts of the panel. In cases where a panel has a decor on both sides, it is necessary to provide good air circulation on each side of the panel. For mounting rules, see also the "Manual of Technical Information", downloadable from our website [www.lamicolor.it](http://www.lamicolor.it).

**Cleaning.** LAMCO<sup>HPL</sup>COMPACT - TUTTOCOLORE can be clean from impurities as powder, grease, alimentary liquids, cosmetics, colours, paints and other similar impurities, by means of common domestic detergents or solvents as water or ethanol.

Do not use abrasive or scratching substances. Do not use detergents containing strong acids or acid salts e.g. decalcifiers based on formic or aminosulphatic acid, drain cleansers, hydrochloric acid, silver cleaners, oven cleaners.

At the end of cleaning, rinse and dry always with non abrasive cloths.

Moreover, it is necessary to avoid the contact between impurities and LAMCO<sup>HPL</sup>COMPACT - TUTTOCOLORE for a long time.