**SOCIETA' ITALIANA LASTRE S.p.A.**

**SILBONIT HA-HC are asbestos free double pressed and autoclaved flat boards. They are reinforced with mineralized cellulose fibers and through colored, with smoothed surface and rectified edges. SILBONIT HA-HC boards are CE marked according to EN 12467:2016.**

**Technical Data Sheet (rev.9 del 07/12/2018)**

**SILBONIT HA-HC untreated boards**
**SILBONIT HA-HC hydrophobic boards**
**SILBONIT HA-HC transparent acrylic treated boards**
**SILBONIT HA-HC coloured acrylic treated boards ( Pigmenta )**

| * wet over dry | Unit of measure | Value |
|---|---|---|
| **STANDARD DIMENSIONS** AND GEOMETRY** | | |
| Length | mm | 2500<br>3000<br>3050 |
| Width | mm | 1200<br>1250 |
| Thickness | | 5-6-8-10-12-15-20 |
| Tolerances on nominal dimensions | Classification according to EN 12467:2016 | Level 1 |
| - on length | mm | ± 2 |
| - on width | mm | ± 1 |
| - on straightness of edges | % | 0,1 |
| - on squareness of edges | mm/m | 2 |
| - on thickness for smooth sheets | mm | ± 0,2 |
| Nominal weight | $kg/m^2$ | 14,4 (t=8mm)<br>18,0 (t=10mm)<br>21,6 (t=12mm) |
| **PHYSICAL PROPERTIES** | | |
| Density (dry) | $kg/m^3$ | 1600 ± 50 |
| **MECHANICAL PROPERTIES** | | |
| E modulus of elasticity (dry) | | |
| - longitudinal | GPa | 14 |
| - transversal | GPa | 12 |
| E modulus of elasticity (wet) | | |
| - longitudinal | GPa | 11 |
| - transversal | GPa | 9 |
| Bending strength (wet) – untreated sheets | MPa | ≥18 |
| Bending strength (wet) – hydrophobic treated sheets - transparent acrylic treated sheets- coloured acrylic treated sheets ( Pigmenta ) | MPa | ≥24 |
| Bending strength (dry) | | |
| - longitudinal | MPa | 32 |
| - transversal | MPa | 22 |
| Compressive strength | MPa | 40 |
| Resistance (Charpy test) | According to | |

| * wet over dry | Unit of measure | Value |
|---|---|---|
| | EN 179-1:2010 | |
| - longitudinal | kJ/m² | 4,3 |
| - transversal | kJ/m² | 3,1 |
| **HYGROMETRICAL PROPERTIES** | | |
| Natural humidity | % | 10 ÷ 15 |
| Max water absorption*– (untreated sheets) | % | 25 ± 2 |
| Max water absorption* – hydrophobic treated sheets (treated sheets) | % | 9 ± 3 |
| Max water absorption* – transparent acrylic treated sheets- coloured acrylic treated sheets ( Pigmenta ) | % | 3 ± 2 |
| Moisture movement – Relative humidity change from 30% to 90% | | |
| - longitudinal | mm/m | 0,7 |
| - transversal | mm/m | 0,8 |
| **THERMAL AND WATER VAPOUR PROPERTIES** | | |
| Vapor resistance factor, μ – according to EN 12572:2016 | --- | 49 |
| Thermal conductivity – according to EN 12664:2002 | W/mK | 0,42 |
| Thermal expansion coefficient – according to EN 10545-8:2014 | | |
| - longitudinal | 1/°C | 1,71•10-6 |
| - transversal | 1/°C | 0,58•10-6 |
| **OTHER PROPERTIES** | | |
| Superior calorific power | MJ/kg | 0,14 |
| Fire rating class | According to EN 13501-1 | A2 s1 d0 |
| Freeze-thaw performance | | RL ≥ 0,75 |
| Durability classification | According to EN 12467:2016 | category A |
| Strength classification – untreated sheets | According to EN 12467:2016 | class 4 |
| Strength classification – treated sheets | According to EN 12467:2016 | class 5 |
| Oils, acids, bases, salts resistance | | good |
| Waterproof - inalterability | | absolute |
| Wear resistance | | good |
| CE marked product according to | --- | EN12467:2016 |

** On request are available smaller dimensions.

If not otherwise specified the tests are in accordance to EN 12467:2016.

Please refer to the latest Technical Data Sheet available in the download area at:
http://www.sil-lastre.com/download/
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