



MgO green W17 M-M and F17 M-M composite building panel

1. Product identification/Trade name

MgO green W17 M-M and F17 M-M composite building panel

Producer: LS Tech-Homes SA, ul. Karola Korna 7/4, 43-300 Bielsko-Biała, PL

Customer Service Centre: ul. Junacka 31, 43-502 Czechowice-Dziedzice

Tel./fax: +48 32 210 18 26, www.lstechhomes.com, sekretariat@lstechhomes.com

2. Product description

MgO green W17 M-M and F17 M-M composite building panel is composed of three layers:

1. Cladding made of 11 mm thick MgO green board.
2. Polyurethane adhesive – vapor barrier film.
3. Core – Styrofoam EPS 100, 150 mm thick.
4. Polyurethane adhesive – vapor barrier film.
5. Cladding made of 11 mm thick MgO green board or 12 mm thick OSB-3 board.

3. Application

MgO green W17 M-M and F17 M-M composite building panel is dedicated for:

- Inside walls fulfillment. Panels cannot be exposed to direct influence of water, that is why they are not supposed to be used as elements in swimming pools walls, sauna etc. Panels have to be protected against water if they are used as bathrooms elements. Such bathrooms require also appropriate ventilation.
- Fulfillments of outside walls after protecting outside layer of panel against weather using penthouses, finishing with thin-coat plaster on lathing, covering with stone, ceramic or other covering, usage of lasting elevation layer.
- MgO green W17 M-M and F17 M-M is dedicated to floors.

Possible application:

- Siding in buildings and manufacturers,
- Garages, harbours, public utility buildings,
- Residential building up to two floors, where composite panels are building structure,
- Ceiling and floor panels, roof panels,
- Partition walls,
- Self-supporting outside walls.

4. Technical Parameters

- Compression strength or compression stress: 0,117MPa
- Flexural modulus (compression): 4,747MPa
- Carrying capacity of free panel when loads act towards support, maximal spa between support 290 cm, bear loads not lower than 2,5kN/m².
- Fire resistance: EI30/E60
- Very high resistance to hit. Standard test of soft object impact did not caused any visible damages and small dents which occurred during the test did not have any influence on further usage of the panels.
- Bending caused by the temperature difference is 0,08% of span length between assembling points and is invisible.
- Stretching strength: 0,222MPa
- Flexural strength (stretching): 9,33 Etc.
- Carrying capacity in 3 panels arrangement is 46kN.
- Used expanded polystyrene has declared value of diffusion resistance ratio 1,47 [-], which is typical for majority of products available in the market. Magnesium oxide board has obtained diffusion resistance ratio 579,56 [-] – this is a very good value and it ensures fast and effective drainage of vapour condensate from the inside of the thermal barrier, lowering the risk of barrier materials degradation.
- Outside walls made of MgO green W17 M-M and F17 M-M hit with soft tissues with 1200J energy do not show any damages on the surface of the panel nor permanent deformation
- Outside walls made of MgO Green W17 M-M/F17 M-M hit with 10J energy do not show any damages on the surface of the panel nor permanent deformation
- U value = 0,22 (W/m²K)
- Acoustic insulation – up to 30dB

5. Packaging, storage and transport

MgO green W17 M-M and F17 M-M composite building panel should be packed, stored and transported in the way which provides that the technical parameters wouldn't be changed. The product should be stored in dry place. Product is not dangerous as far as internal or international transport law is concerned. Maximal panel dimensions: 1220 x 3000 mm.

MgO green W17 M-M and F17 M-M composite building panel should be used according to the technical project prepared for specified building object including:

- Norms, technical and building especially, Minister of Infrastructure Regulation of 12th April 2002 on technical conditions of buildings and their location (Dz.U.No75 of 2002 item 690 with changes).
- Technical Approval ITB AT-15-8776/2011.
- Mounting instructions prepared by the producer.