

**Description**

Grenamat A is non-combustible board made from the expanded vermiculite and inorganic binder. The material is free of asbestos, mineral or glass fibers and organic substance. Boards are ecological and resistant to temperatures up to 1000°C.

**Application**

Grenamat A - non-combustible board for building of fire resistance ceiling and bulkheads – class B. Boards can be used for non-combustible walls, interior components and the furniture. Boards are easy for processing with normal wood-working tools. Grenamat A boards can be covered with a various materials.

Certified according to MED to use in the shipbuilding all over the world.

| Trade mark   | Grenamat A                                   |  |   |            |            |            |   |            |
|--|--|--|---|------------|------------|------------|---|------------|
| Dimensions (basic format)                                | mm   | 1220 x 2440  |   |            |            |            |   |            |
|  | in   | 48 x 96  |   |            |            |            |   |            |
| Bulk density (tol. ±10%)                                 | EN 1094-4                                    | kg/m <sup>3</sup>  | 480   | 520        | 550        | 600        | 650   | 750        |
|  |  | lb/ft <sup>3</sup>   | 30.0  | 32.5       | 34.3       | 37,9       | 40.6  | 46.8       |
| Thickness  |  | mm   | 16-80*  | 10-70*     | 10-70*     | 10-65*     | 10-65*  | 8-55*      |
|  |  | in   | 0.63-3.15*  | 0.39-2.76* | 0.39-2.76* | 0.39-2.56* | 0.39-2.56*  | 0.32-2.17* |
| Thickness tolerance                                      | EN 823                                       | mm   | ±0,3**  |            |            |            |   |            |
|  |  | in   | ±0.012  |            |            |            |   |            |
| Dimensional tolerance                                    | EN 822                                       | mm   | ±5,0  |            |            |            |   |            |
|  |  | in   | ±0.2  |            |            |            |   |            |
| Straightness tolerance                                   | EN 822                                       | mm/m   | 1,5   |            |            |            |   |            |
|  |  | in/ft  | 0.02  |            |            |            |   |            |
| Bending strength   | EN 310                                       | N/mm <sup>2</sup>  | 1,2≤  | 8-55*      | 1,2≤       | 1,5≤       | 3≤  | 4,5≤       |
|  |  | PSI  | 174≤  | 0.32-2.17* | 174≤       | 217≤       | 435≤  | 652≤       |
| Compressive strength                                     | EN 319                                       | N/mm <sup>2</sup>  | 2,0≤  | 2,0≤       | 2,5≤       | 2,6≤       | 2,8≤  | 3,0≤       |
|  |  | PSI  | 290≤  | 290≤       | 363≤       | 377≤       | 406≤  | 435≤       |
| Determination of tensile strength perpendicular to faces | EN 1607                                      | N/mm <sup>2</sup>  | 0,5≤  | 0,5≤       | 0,5≤       | 0,5≤       | 0,6≤  | 0,7≤       |
|  |  | PSI  | 73≤   | 73≤        | 73≤        | 73≤        | 87≤   | 102≤       |
| Humidity ex-works  | EN 322                                       | %  | 4-8   |            |            |            |   |            |
| Water absorption   | EN 1609                                      | g/cm <sup>3</sup>  | 0,66 (bulk density 750 kg/m <sup>3</sup> )                          |            |            |            |   |            |
|  |  | lb/ft <sup>3</sup>   | 41 (bulk density 46,8 lb/ft <sup>3</sup> )                          |            |            |            |   |            |
| Swelling   | EN 317                                       | %  | 2,5 (bulk density 750 kg/m <sup>3</sup> / 46,8 lb/ft <sup>3</sup> ) |            |            |            |   |            |
| Thermal capacity   | EN 821-3                                     | kJ/kg·K  | 1,42  |            |            |            |   |            |
|  |  | BTU/lb·°F  | 0.34  |            |            |            |   |            |
| Thermal conductivity at 20 °C / 68 °F                    | EN ISO 8894-1                                | W/m·K  | 0,23  | 0,25       | 0,28       | 0,3        | 0,32  | 0,35       |
|  |  | BTU·in/h·ft <sup>2</sup> ·°F   | 1.60  | 1.74       | 1.94       | 2.01       | 2.22  | 2.43       |
| sound isolation  | ČSN EN ISO 717-1                             | dB   | 32  | 32         | 32         | 33         | 33  | 34         |
| Thermal expansion  |  | x10 <sup>-6</sup> /K   | 8,5   |            |            |            |   |            |
|  |  | x10 <sup>-6</sup> /°F  | 4.7   |            |            |            |   |            |
| Classification temperature                               | EN 1094-6                                    | °C   | 900   |            |            |            |   |            |
|  |  | °F   | 1652  |            |            |            |   |            |
| Classification and application ***                       | SOLAS 74<br>2000 HSC<br>IMO 2010 FTP<br>Code | - Grenamat A<br>- Grenamat A (w/o HPL) 19/600 max.1220x2440<br>- Grenamat A (w/ HPL) 19/600 max.1220x3050<br>- Grenamat A (w/o HPL) 19/750 max.1220x2440<br>- Grenamat A (w/ HPL) 19/750 max.1220x3050 |   |            |            |            | Non-Combustible<br>Bulkhead B-0<br>Bulkhead B-0<br>Bulkhead B-0 & B-15<br>Bulkhead B-0 & B-15 |            |

\* thickness glued parts from 2 or more boards

\*\* unsanded boards ± 1,0

\*\*\* more information can provide you with our technical consultants



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### Storage, handling and processing

Store in areas with temperature above 5°C (41 °F) and relative humidity of 65%. The material must be protected against direct impact of weather. When stacking is recommended to support the boards on a pallet or sufficiently thick under layer (approx. spacing 500 mm (19, 68 in)) so as to prevent deformation of the boards.

Transport conditions:

- max. 2 pallets on each other
- always manipulate palette of max. spacing fork (min. 1,200 mm (47,24 in))
- along handling pallets - it is necessary to use a fork length min. 2,000 mm (78,74 in)

Processing of the boards is recommended at a temperature of 15 – 25°C (59 – 77°F) and a relative humidity of 85%.

Without adequate treatment is not appropriate to use the material in exterior applications and environments with relative humidity above 65%. When installing the board it is necessary to prevent condensation of water vapor on the surface of the material and exclude direct contact with water.

Material processing can be performed by conventional woodworking tools.

It is valid only for the boards 10/520kg/m<sup>3</sup>: Grena, a.s. is warning the Client, that the ordered boards are not recommended for transport without any surface treatment. The boards are packed with the utmost care and are sent at the customer's request. Grena, a.s. does not bear any responsibility for damage during transport and handling. The damaged boards can not be claimed.



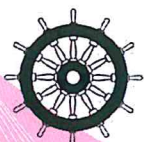
### REACH

Manufacturer Grena, a.s., Veselí nad Lužnicí declares that the above mentioned product is not contained substance on the list of dangerous substances, SVHC (Substances of Very High Concern), published by the European Chemicals Agency (ECHA) on its website.

### DECLARATION OF HEALTH

Manufacturer Grena, a.s., Veselí nad Lužnicí declares that the designated product is free of asbestos, mineral and glass fibers.

Manufacturer Grena, a.s., Veselí nad Lužnicí declares that the board Grenamat A are objects, which means they are under the current wording of the European Parliament and Council Regulation (EC) no. 1907/2006 on the registration, evaluation, authorization and restriction of chemical substances, as amended Commission Regulation (EC) no. 987/2008 and Commission Regulation (EU) no. 453/2010 exempted from registration and thus the obligation of issuing safety data sheets.



Our technical consultants are always ready to answer you specific questions and advise you with the product application according to your needs. The information in this sheet is based on practical experience, as well as on tests and reflects our current state of knowledge. They serve as information and does not contain any assurance of product properties or their suitability for specific applications. Try for yourself whether our product is suitable for your purposes.

Date of revision: 2022-06-13 (replaces the previous version of TDS)



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