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Ty-Mawr Wood Wool Boards

A HEALTHY HOME: WHEN?

Bioecological Architecture has set out its prerequisites for a healthy home:

- **TRANSPIRATION**, in other words the ability to diffuse vapours renders the home healthy and prevents mould from forming. It further allows radiation and any toxic vapours to be expelled.
- **MOISTURE ABSORBANCE**, in other words the ability to absorb, and later release, the water vapours produced, thus guaranteeing comfortable living conditions.
- **THE ABILITY TO ACCUMULATE HEAT**, in other words the ability to absorb summer heat and accumulate winter heat, including that derived from solar energy.
- **THE OPTIMUM INSULATION/HEAT ACCUMULATION RATIO**, in other words the ability to find the right balance between an acceptable level of insulation and an acceptable level of heat accumulation, in order to guarantee a constant interior micro-climate and an appropriate level of energy efficiency.
- **HIGH-LEVEL TECHNICAL CHARACTERISTICS**
- **HIGH-LEVEL ACOUSTIC CHARACTERISTICS**, both as a sound absorber and as a acoustic insulator
- **EXCELLENT FIRE PROTECTION**
- **ABSENCE OF HARMFUL SUBSTANCES**: there are as many as 250 substances which bio-architecture has identified as being negative!
- **ABSENCE OF RADIATION**
- **GOOD PROTECTION FROM NATURAL MAGNETIC FIELDS**
- **RESISTANCE TO HUMIDITY, WATER AND FREEZING TEMPERATURES**

**DECLARED ECOBIOCOMPATIBLE
CONFORMING TO EN 13168**



BIO-BUILDING

BIO-ECOLOGICAL CERTIFICATION

Ty-Mawr's new wood wool board has obtained Bio-Ecological certification for its products from three institutes:

- **ANAB (Italian National Association for Bioecological Architecture)**
- **IBO (Österreichisches Institut für Baubiologie und Ökologie)**
- **IBN (Institut für Baubiologie Neubeuern).**

Technical Characteristics

DESCRIPTION	
	Panel consisting of long mineralised Fir wood-wool bound with Portland cement.
USES	
<ul style="list-style-type: none"> • Elimination of thermal bridges in pillars, beams, inter-storey facings, radiator niches • Acoustic insulation of walls • Insulation from floor noise • Fire resistant coverings • Insulation of flat and sloping roofs • Permanent formwork to concrete 	

Characteristics	M.U.									
		15	20	25	30	35	40	50	75	
Medium weight	kg/m ²	8	10	11,5	13	14	16	18	26	
Thermal resistance at 10 °C	m ² K/W	0,20	0,27	0,35	0,43	0,53	0,61	0,81	1,22	
Average resistance to flexion (*)	N/mm ²	3,51	3,33	3,15	2,55	1,94	1,82	1,71	1,16	
Average resistance to compression by pressing 10%	N/mm ²	0,2	0,2	0,2	0,2	0,2	0,15	0,15	0,15	
Reaction to fire	class	1 (B1)								
Resistance to vapour	μ	4-6								
Resistance to water and frost	20 cycles frost/defrost	no alteration								
Temperature limit for use	°C	200								
Capacity of absorption of room humidity	lt/m ²	2-3,5								
Specific heat	kJ/kgK	2,1								
Capacity for thermal accumulation	kJ/m ³ K	1119-726								
Linear dilatation thermal coefficient	mm/mK	0,01								
Resistance to traction perpendicular to the face	N/mm ²	0,05								
Resistance to cutting	N/mm ²	0,28								
Adhesion to concrete	N/mm ²	0,05								
Resistance to mould and fungus attack		Inhibition								