

*myco*



# TECHNICAL DATA SHEET

## BASIC INFORMATION

Myco material is commercially available for new types of products that are completely made from fungal mycelium and upcycled materials.

## HAZARD DESIGNATION

- 1) Hazard to human health: **no specific hazards**
- 2) Safety hazard: **no specific hazard**
- 3) Environmental hazard: **no specific hazard**

## REACTION TO FIRE AND STANDARDISATION

### CLASSIFICATION:

Moisture sensitivity: **RH > 50 %** (slight variations in colour tone on the surface may occur)

Odour: **none or slight natural odour**

Material appearance: **compact and durable, available in white**

Classification of reaction to fire class according to ČSN EN 13501-1: **D-s2-d0**

### FIRE PERFORMANCE CLASSIFICATION:

VOC emissions: **not measured ( $\mu\text{g}/\text{m}^2\text{h}$ )\***

UV sensitivity according to ČSN EN 15187 excellent: **grey 5/5, blue scale > 6**

Dimensional stability according to ČSN EN 1604: **< 0.4% (40°C; RH = 70 %), -2.0% (70°C; RH = 90 %)**

Bulk density depending on substrate composition: **100-220 [ $\text{kg}\cdot\text{m}^{-3}$ ]**

Coefficient of thermal conductivity:  **$\lambda = 0.046 [\text{W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}]$**

Test bodies 100 x 100 x 14 mm

Compressive strength according to ČSN 826:  **$\sigma_{10} = 19.5 \pm 5 \text{ kPa}$**

Pressed test bodies 100 x 100 x 6 mm

Bending strength ČSN EN ISO 178:  **$\sigma_{\text{max}} = 4.5 \text{ MPa}$ ;  $\sigma_{\text{smodch}} = 1.2 \%$**

Deformation before damage: **2.5 %**

\*VOC results determined in a chamber for 28 days

## TECHNICAL DATA SHEET OF THE PRESSED BOARD

A...wet pressed

B...pressed dry

Density according to ČSN EN 323, 1994:

sample	$\rho [\text{kg}\cdot\text{m}^{-3}]$	$\pm [\text{kg}\cdot\text{m}^{-3}]$
A	775.75	48.40
B	750.73	57.06

Humidity according to ČSN EN 322, 1994:

sample	diameter [%]	$\pm$ [%]
A	2.39	0.17
B	2.64	1.87

Swelling according to ČSN EN 317, 1995:

sample	diameter [%]	$\pm$ [%]
A	20.55	2.24
B	34.86	2.79

Fragmentation according to ČSN EN 319, 1994:

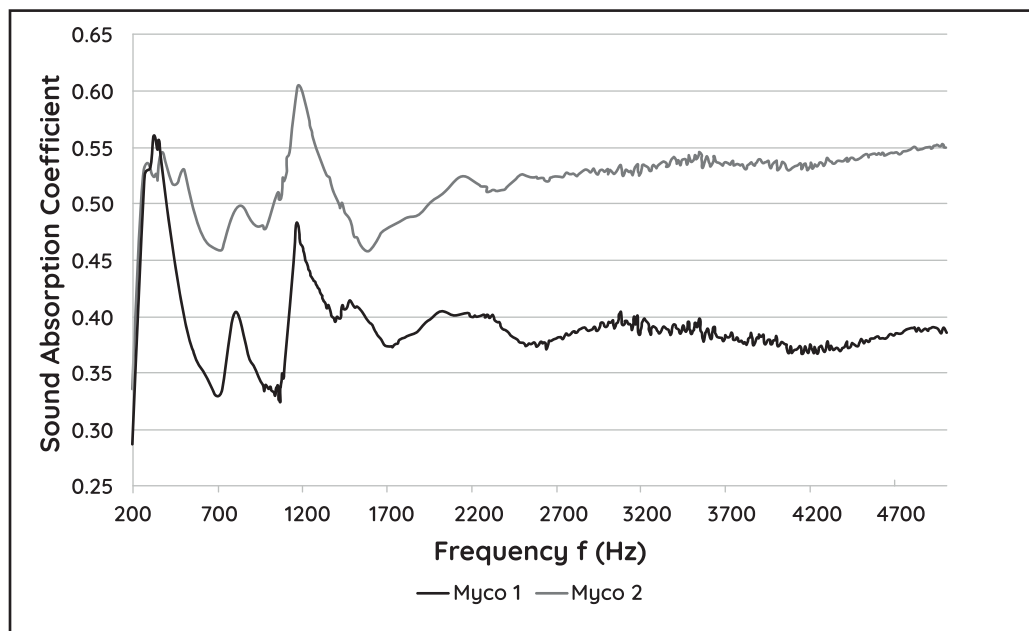
sample	$F_{\text{max}} [\text{N}\cdot\text{mm}^{-2}]$	$\pm$ [ $\text{N}\cdot\text{mm}^{-2}$ ].
A	0.38	0.10
B	0.14	0.06

## ACOUSTIC PROPERTIES

Measured according to EN ISO 10534-2, sound absorption coefficient calculated according to ASTM C423:

$$NRC_{Myco\ 1} = 0.40$$

$$NRC_{Myco\ 2} = 0.52$$



	$\alpha$ 250 Hz	$\alpha$ 500 Hz	$\alpha$ 1000 Hz	$\alpha$ 2000 Hz	NRC
Myco 1	0.47	0.40	0.34	0.40	<b>0.40</b>
Myco 2	0.51	0.53	0.48	0.51	<b>0.51</b>

Based on the measured values, we can classify Myco material in sound absorption class **D**, which is good for natural wood-based materials.