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Regulations for building materials in Poland regarding natural based insulations

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Regulations for building materials in Poland

1. REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC (OZPORZĄDZENIE PARLAMENTU EUROPEJSKIEGO I RADY (UE) NR 305/2011 z dnia 9 marca 2011 r. ustanawiające zharmonizowane warunki wprowadzania do obrotu wyrobów budowlanych i uchylające dyrektywę Rady 89/106/EWG)
2. Ustawa z dnia 16 kwietnia 2004 r. o wyrobach budowlanych Dz.U. 2004 nr 92 poz. 881 z późniejszymi zmianami (Act of April 16, 2004 on construction products, Journal of Laws 2004 No. 2004 No.92, item. 881 as amended)
3. Rozporządzenie Ministra Infrastruktury i Budownictwa z dnia 17 listopada 2016 r. w sprawie sposobu deklarowania właściwości użytkowych wyrobów budowlanych oraz sposobu znakowania ich znakiem budowlanym Dz.U. 2016 poz. 1966 z późniejszymi zmianami (Regulation of the Minister of Infrastructure and Construction of November 17, 2016 on the method of declaring the performance of construction products and the method of marking them with the construction mark, Journal of Laws No. 2016 item 1966 as amended)
4. Ustawa z dnia 12 grudnia 2003 r. o ogólnym bezpieczeństwie produktów Dz.U. 2003 nr 229 poz. 2275 z późniejszymi zmianami (Act of 12 December 2003 on general product safety, Journal of Laws No. 2003 No. 229 item 2275 as amended)
5. Ustawa z dnia 7 lipca 1994 r. - Prawo budowlane. Dz.U. 1994 nr 89 poz. 414 z późniejszymi zmianami (The Act of July 7, 1994 - Construction Law. Journal of Laws 1994 No 89 item. 414 as amended)
6. Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie. [Dz.U. 2002 nr 75 poz. 690](#) z późniejszymi zmianami (Regulation of the Minister of Infrastructure of April 12, 2002 on technical conditions to be met by buildings and their location. Journal of Laws 2002 No.75, item. 690 as amended)

General regulations

- A construction product may be placed on the market if it is suitable for use in the performance of construction works, to the extent corresponding to its functional properties and intended use, i.e. it has functional properties that enable properly designed and constructed construction objects, in which it is to be permanently used, to meet basic requirements (Act 2).
- When a construction product is covered by a harmonised standard or conforms to a European Technical Assessment which has been issued for it, the manufacturer shall draw up a declaration of performance when such a product is placed on the market. By drawing up the declaration of performance, the manufacturer shall assume responsibility for the conformity of the construction product with such declared performance (EU Regulation 1).

General regulations

- If the product is not covered by a harmonized standard, then the assessment of its properties can be made on the basis of the national system - intended for the domestic market. A construction product not covered by a harmonized standard for which the coexistence period referred to in Art. 17 sec. 5 of Regulation No. 305/2011, and for which the European Technical Assessment has not been issued, may be placed on the market if it has been marked with a construction mark:



<https://www.ce-polska.pl/znak-budowlany-b.html>

- The rules of how to declare the performance of construction products and the method of marking them with a construction mark are described in (Regulation 3)

- If there is no national system of assessment and verification of constancy of performance of construction products, then the product is subject to the act on general product safety and the entity must prove that the product is safe (Act 4 – about general products safety).
- When performing construction works, products approved for trading and use in construction should be used. This is the responsibility of the site manager (Act 5 – Construction Law.).
- Act 2 on construction products gives opportunity of approval for individual use of products made according to individual technical documentation, prepared by the designer of the facility or agreed with him, for which the manufacturer issued a statement that the construction product complies with this documentation and with the regulations. In practice, this means the necessity to prepare individual technical documentation for each application. **However, it is always a problem to demonstrate the refractory properties of materials.**

Regulation of the Minister of Infrastructure of April 12, 2002 on technical conditions to be met by buildings and their location (Regulation 6) requires that

- § 216.8 In the building, at a height of more than 25 m from the ground level, the façade cladding and its mechanical fastening, as well as thermal insulation of the external wall should be made of non-flammable materials
- § 219. 1. Roof covering with an area of more than 1000 m² should not spread fire, and the combustible thermal insulation of the covering should be separated from the interior of the building by a partition with a fire resistance class not lower than R E 15
- § 267. 1. Ventilation ducts should be made of non-flammable materials, and flammable thermal and acoustic insulation as well as other flammable cladding of ventilation ducts may be used only on their outer surface in a way that prevents the spread of fire.

Groups of natural-origin insulation products covered by the standards

- EN 13168:2012+A1:2015 Thermal insulation products for buildings. Factory made **wood wool** (WW) products. Specification
- EN 13169:2012+A1:2015 Thermal insulation products for buildings. Factory made **expanded perlite board** (EPB) products. Specification
- EN 13170:2012+A1:2015 Thermal insulation products for buildings - Factory made products of **expanded cork** (ICB) - Specification
- EN 13171:2012+A1:2015 Thermal insulation products for buildings - Factory made **wood fibre** (WF) products – specification
- EN 14316-1:2004 Thermal insulation products for buildings. In-situ thermal insulation formed from **expanded perlite** (EP) products. Specification for bonded and loose-fill products before installation
- EN 14317-1:2004 Thermal insulation products for buildings. In-situ thermal insulation formed from **exfoliated vermiculite** (EV) products. Specification for bonded and loose-fill products before installation
- **EN 15101-1+A1:2019-06 Thermal insulation products for buildings -- In-situ formed loose fill cellulose (LFCI) products -- Part 1: Specification for the products before installation**
- **EN 15101-2:2013-12 Thermal insulation products for buildings -- In-situ formed loose fill cellulose (LFCI) products -- Part 2: Specification for the installed products**

Conclusions

- In practice it is difficult to implement natural materials which are not covered by standards. Especially problematic is the fire proof assessment. In result, it is easier to implement it in the buildings situated far away from other objects.
- The standard for cellulose products (15101) gives an opportunity of using other materials, similar in properties to cellulose as a loose fill insulations, but it also requires certification.
- Other possibility is certification of the materials abroad. For example, Polish straw is certified in Germany or Austria.

Adoption of v4 building stocks to nZEB standard using natural and bio-based materials

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THANK YOU FOR ATTENTION



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