



Green product card for  
**termPIR insulation panels** manufactured by  
Gór-Stal Sp. z o.o. including multicriteria  
certification requirements in accordance with  
standards

- » BREEAM International NC 2013
- » BREEAM International NC 2016
- » BREEAM-SE NC 2017
- » BREEAM-NOR NC 2016
- » BREEAM-NL NC 2020
- » BREEAM-DE NC 2018
- » LEED v4 BD+C New Construction
- » LEED v4.1 BD+C New Construction

## Purpose of the document

The purpose of the present document relates to the conformity of the products to the standard and/or contributions that it may bring to the same project.

## Introduction

The BREEAM and LEED certifications are related to the building, and not the product, despite the fact that it plays an essential role in obtaining a final credit. All the analyzed products within the project can contribute to obtaining the credit, as long as they are in conformity of the requirements.

## BREEAM

The Building Research Establishment Environmental Assessment Method was created by BRE in 1988. First launched in 1990, BREEAM was the world's first environmental assessment method for new building designs. It uses a balanced scorecard approach with tradable credits to enable the market to decide how to achieve optimum environmental performance for the project.

BREEAM New Construction is the BREEAM standard against which the sustainability of new, non-residential buildings is assessed. Developers and their project teams use the scheme at key stages in the design and procurement process to measure, evaluate, improve and reflect the performance of their buildings.

The BREEAM building certificate is based on a category structure that includes ten topics:

1. Management
2. Energy
3. Health and wellbeing
4. Transport
5. Water
6. Materials
7. Waste
8. Land use and ecology
9. Pollution
10. Innovation

BREEAM International New Construction is the BREEAM standard for assessing the sustainability of new residential and non-residential buildings in countries around the world, except for the UK and other countries with a national BREEAM scheme:

Netherlands, Spain, Norway, Sweden, Germany. This scheme makes use of assessment criteria that take account of the circumstances, priorities, codes and standards of the country or region in which the development is located.

BREEAM schemes in countries with a national BREEAM scheme are operated by National Scheme Operators (NSOs):

- » Netherlands – the Dutch Green Building Council operates BREEAM NL
- » Spain – the Instituto Tecnológico de Galicia operates BREEAM ES
- » Norway – the Norwegian Green Building Council operates BREEAM NOR
- » Sweden – the Swedish Green Building Council operates BREEAM SE
- » Germany – the German Institute for Sustainable Real Estate (DIFNI) operates BREEAM DE.

## LEED

The certification of buildings LEED was formed in the United States in 1993 by the U.S. Green Building Council, a non-profit organization that has contributed deeply to the innovation of the building industry. The LEED system certifies the sustainability of the environment and the building's economy. It considers all the phases of construction: design, construction site, daily management, materials used and the energy performance.

The LEED building certificate is based on a credit structure that includes seven topics:

1. Sustainable Sites (SS)
2. Water Efficiency (WE)
3. Energy and Atmosphere (EA)
4. Materials and Resources (MR)
5. Indoor Environmental Quality (IEQ)
6. Innovation & Design (ID)
7. Regional Priority (RP)

The credits are structured in: prerequisite (p), central credits (c) and credits for innovation.

During the certification phase a project must satisfy all the required prerequisites, the credits are awarded based on the level of achievement reached of each requisite being considered and evaluated based on the established criteria.

## Manufacturer and product description

Gór-Stal has been on the market for producers of building materials for over 18 years providing solutions for industrial, residential and agricultural construction offering a wide range of wall, roof and cooling sandwich panels. One of the important activities is the production of termPIR® insulation boards. Gór-Stal specializes in the production of PIR panels which are one of the component parts during thermal insulation works. They can be used when insulating pitched roofs, attics, flat roofs, terraces, as well as ceilings, basements, foundations and floors. PIR panels for the wall can be used to insulate both external two-layer and three-layer walls as well as partition walls and other internal walls. In the case of PIR panels family a core material is a rigid PIR foam obtained in a controlled chemical reaction during production process.

Gór-Stal insulating boards are resistant to chemicals, fungi, bacteria, rodents. Their unquestionable advantage is that they are characterized by low water absorption. Low volumetric weight and high compressive strength make it ideal for thermal insulation. The material has a tight structure throughout its volume, which significantly improves the energy efficiency of the building.

## Overall summary

### BREEAM standards

	BREEAM Int. 2013	BREEAM Int. 2016	BREEAM -SE 2017	BREEAM -NOR 2016	BREEAM -NL 2020	BREEAM -DE 2018
Hea 02		●	●		●	●
Mat 01		●	●		●	●
Mat 03		●	●	●	●	●
Mat 04	●					

### LEED standards

	LEED v4	LEED v4.1
MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations	●	●
MR Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	●	●
MR Credit Building Product Disclosure and Optimization - Material Ingredients	●	
MR Credit Construction and Demolition Waste Management	●	●
EQ Credit Low-Emitting Materials	●	●

Compliance with the selected credits has been assessed based on the following documents:

- » **Eurofins Indoor Air Comfort GOLD® Certificate declares VOC emissions.** The testing methods are accredited on line with EN ISO/IEC 17025 by DANAK. This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF). This refers to termPIR BT, termPIR AL and termPIR MAX 19.
- » **Environmental Product Declaration** Type III based on EN 15804 and verified according to ISO 14025 by an external auditor, from January 2021 valid for 5 years from issue date or until amendment of the declaration. EPD Program Operator is ITB (Instytut Techniki Budowlanej).
- » **PCC-CERT certificate** confirms that Gór-Stal applies the Integrated Management System and meets the requirements of PN-EN ISO 9001: 2015 and PN-EN ISO 14001: 2015 in terms of production of sandwich panels and thermal insulation panels with a polyurethane core, including PIR core, and the production of panels with mineral wool core.
- » **Declarations of performance** of all the termPIR insulation panels.

Credit	Points possible to obtain
<b>BREEAM Int. New Construction 2013 v1.1</b>	
Mat 04 Insulation	1
<b>BREEAM Int. New Construction 2016 v2.0</b>	
Hea 02 Indoor air quality	1 + 2 Exemplary points
Mat 01 Life cycle impacts	1 + 1 Exemplary point
Mat 03 Responsible sourcing of construction products	4 + 1 Exemplary point
<b>BREEAM-SE New Construction 2017 v1.1</b>	
Hea 02 Indoor air quality	1 + 2 Exemplary points
Mat 01 Life cycle impacts	1 + 1 Exemplary point
Mat 03 Responsible sourcing of construction products	4 + 1 Exemplary point
<b>BREEAM-NOR New Construction 2016 v1.2</b>	
Mat 03 Responsible sourcing of materials	3 + 1 Exemplary point
<b>BREEAM-NL New Construction 2020 v1.0</b>	
Hea 02 Indoor air quality	1 + 2 Exemplary points
Mat 01 Mat 01 Environmental impact of building materials	1 + 1 Exemplary point
Mat 03 Responsible sourcing of construction products	4 + 1 Exemplary point
<b>BREEAM-DE New Construction 2018 v1.0</b>	
Hea 02 Indoor air quality	1 + 2 Exemplary points
Mat 01 Life cycle impacts	1 + 1 Exemplary point
Mat 03 Responsible sourcing of materials	4 + 1 Exemplary point
<b>LEED v4 BD+C New Construction</b>	
MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations	1
MR Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	1
MR Credit Building Product Disclosure and Optimization - Material Ingredients	1
MR Credit Construction and Demolition Waste Management	2
EQ Credit Low-Emitting Materials	3
<b>LEED v4.1 BD+C New Construction</b>	
MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations	1
MR Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
MR Credit Construction and Demolition Waste Management	1
EQ Credit Low-Emitting Materials	3

Standard: BREEAM

Category: Health and wellbeing

Credit: Hea 02

	BREEAM Int. 2013	BREEAM Int. 2016	BREEAM -SE 2017	BREEAM -NOR 2016	BREEAM -NL 2020	BREEAM -DE 2018
Hea 02		●	●		●	●

» **BREEAM Int. New Construction 2016 v2.0** - Hea 02 Indoor air quality, criteria: 10, 21, 23

One credit - Emissions from building products

Criterion 10. The product type is listed in table 17 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 17. In order to obtain one credit at least four of the five product types listed in table 17 must meet the emission limits.

One credit - Exemplary level criteria

Criterion 21. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain one credit at least four of the five product types listed in table 18 must meet the emission limits.

Two credits - Exemplary level criteria

Criterion 23. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain two credits all product types listed in table 18 must meet the emission limits.

Note: In order to obtain each of the credits above, indoor air quality (IAQ) plan needs to be produced and implemented (criterion 2).

» **BREEAM-SE New Construction 2017 v1.1** - Hea 02 Indoor air quality (all buildings),  
criteria: 8, 19, 21

One credit - Emissions from building products

Criterion 8. The product type is listed in table 17 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 17. In order to obtain one credit at least four of the five product types listed in table 17 must meet the emission limits.

One credit - Exemplary level criteria

Criterion 19. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain one credit at least four of the five product types listed in table 18 must meet the emission limits.

Two credits - Exemplary level criteria

Criterion 21. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain two credits all product types listed in table 18 must meet the emission limits.

Note: In order to obtain each of the credits above, indoor air quality (IAQ) plan must be produced and implemented (criterion 1).

» **BREEAM-NL New Construction 2020 v1.0** - Hea 02 Indoor air quality, criteria: 8, 18, 19

One credit - Emissions from building products and finishing materials

Criterion 8. The product type is listed in table HEA02.3 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table HEA02.3. In order to obtain one credit at least four of the five product types listed in table HEA02.3 must meet the emission limits.

Exemplary performance 1%

Criterion 18. The product type is listed in table HEA02.3 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in the table HEA02.3 for Exemplary Performance. In order to obtain exemplary performance 1% at least four of the five product types listed in table HEA02.3 must meet the emission limits.

Exemplary performance 1%

Criterion 19. The product type is listed in table HEA02.3 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in the table for Exemplary Performance. In order to obtain exemplary performance 1% all product types listed in table 18 must meet the emission limits.

- » **BREEAM-DE New Construction 2018 v1.0** - Hea 02 Indoor air quality (all buildings),  
criteria: 10, 21, 23

One credit - Emissions from building products and finishing materials

Criterion 10. The product type is listed in table 17 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 17. In order to obtain one credit at least four of the five product types listed in table 17 must meet the emission limits.

One credit - Exemplary level criteria

Criterion 21. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain one credit at least four of the five product types listed in table 18 must meet the emission limits.

Two credits - Exemplary level criteria

Criterion 23. The product type is listed in table 18 as 'Ceiling, wall, and acoustic and thermal insulation materials' and meets the emission limits, testing requirements and any additional requirements listed in table 18. In order to obtain two credits all product types listed in table 18 must meet the emission limits.

Note: In order to obtain each of the credits above, indoor air quality (IAQ) plan must be produced and implemented (criterion 2).



Standard: BREEAM

Category: Materials

Credit: Mat 01

	BREEAM Int. 2013	BREEAM Int. 2016	BREEAM -SE 2017	BREEAM -NOR 2016	BREEAM -NL 2020	BREEAM -DE 2018
Mat 01		●	●		●	●

» **BREEAM Int. New Construction 2016 v2.0** - Mat 01 Life cycle impacts (all buildings),  
criteria: 5, 7

One credit - Environmental product declarations (EPD)

Criterion 5. Product meets the definition of one of ten product groups defined in table 44 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain one credit at least five products covered by EPD need to be installed in the building.

Exemplary level criteria

Criterion 7. Product meets the definition of one of ten product groups defined in table 44 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain exemplary level at least ten products covered by EPD need to be installed in the building.

Note: In order to obtain exemplary level the requirements for exemplary level criteria outlined in table 41 within the assessment criteria must be achieved.

» **BREEAM-SE New Construction 2017 v1.1** - Mat 01 Life cycle impacts (all buildings),  
criteria: 5, 7

One credit - Environmental product declarations (EPD)

Criterion 5. Product meets the definition of one of ten product groups defined in table 37 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain one credit at least five products covered by EPD need to be installed in the building.

Exemplary level criteria

Criterion 7. Product meets the definition of one of ten product groups defined in table 37 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain exemplary level at least ten products covered by EPD need to be installed in the building.

Note: In order to obtain exemplary level the requirements for exemplary level criteria outlined in table 34 within the assessment criteria must be achieved.

**BREEAM-NL New Construction 2020 v1.0** - Mat 01 Environmental impact of building  
materials, criteria: 5, 8

One credit - Specification of architectural materials

Criterion 5. Gór-Stal products are specified with product-specific data, which is the Environmental Product Declaration (EPD). The properties of the products are also specified in their declarations of performance. In order to obtain one credit at least one point has to be obtained for Environmental Performance and at least 40% of the shadow costs of the applied architectural materials must be specified with product-specific data.

Exemplary performance

Criterion 8. The products are covered by verified EPD and they can be placed in the National Environmental Database. In order to get exemplary performance at least three new materials or products used in the building must be placed in the NMD.

- » **BREEAM-DE New Construction 2018 v1.0** - Mat 01 Life cycle impacts (all buildings),  
criteria: 5, 7

One credit - Environmental product declarations (EPD)

Criterion 5. Product meets the definition of one of ten product groups defined in table 41 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain one credit at least five products covered by EPD need to be installed in the building.

Exemplary level criteria

Criterion 7. Product meets the definition of one of ten product groups defined in table 41 Mat 03 – Responsible sourcing of construction products, i.e. Group 8 – „Plastic, polymer, resin, paint, chemicals and bituminous”. The product is covered by verified EPD. In order to obtain exemplary level at least ten products covered by EPD need to be installed in the building.

Note: In order to obtain exemplary level the requirements for exemplary level criteria outlined in table 38 within the assessment criteria must be achieved.

- » **BREEAM-NOR New Construction 2016 v1.2** - Mat 01 Life cycle impacts (all buildings)

Points in this credit cannot be obtained as pre-requisite - Absence of environmental toxins is not met. There is no evidence that termPIR insulation is free from toxins listed in Checklist A20.

Standard: BREEAM

Category: Materials

Credit: Mat 03

	BREEAM Int. 2013	BREEAM Int. 2016	BREEAM -SE 2017	BREEAM -NOR 2016	BREEAM -NL 2020	BREEAM -DE 2018
Mat 03		●	●	●	●	●

**BREEAM Int. New Construction 2016 v2.0** - Mat 03 Responsible sourcing of construction products (all buildings), criteria: 2-6

One credit - Sustainable procurement plan

Criteria 2-4 Sustainable procurement plan relating to the responsible sourcing of construction product for Gór-Stal must be prepared and followed. The documented policy and procedure must encourage the specification of products with responsible sourcing certification over similar products without certification.

Up to three credits - Responsible sourcing of construction products

Criterion 5. Gór-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Exemplary level criteria

Criterion 6. Gór-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme. Number of credits achieved is determined based on table 42.

» **BREEAM-SE New Construction 2017 v1.1** - Mat 03 Responsible sourcing of construction products (all buildings), criteria: 3-7

One credit - Sustainable procurement plan

Criteria 3-5. Sustainable procurement plan relating to the responsible sourcing of construction product for Gór-Stal must be prepared and followed. The documented policy and procedure must encourage the specification of products with responsible sourcing certification over similar products without certification.

Up to three credits - Responsible sourcing of construction products

Criterion 6. Gór-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Exemplary level criteria

Criterion 7. Gór-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme. Number of credits achieved is determined based on table 35.

» **BREEAM-NOR New Construction 2016 v1.2** - Mat 03 Responsible sourcing of materials (all buildings), criteria: 2-5

Up to three credits - Responsible sourcing

Criterion 2. Insulation materials are listed as applicable materials and can be applied in different building elements e.g. external walls or roofs.

Criterion 3. Gór-Stal products are responsibly sourced based on Environmental Management Systems (EMS) under ISO 14001. Tier level needs to be assigned according to table 35 and table 36.

Criterion 4. Number of credits achieved is determined in table 34.

Exemplary level criteria

Criterion 5. Gór-Stal products are responsibly sourced based on Environmental Management Systems (EMS) under ISO 14001.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme.

» **BREEAM-NL New Construction 2020 v1.0** - Mat 03 Responsible sourcing of construction products (all buildings), criteria: 3-7

One credit - Sustainable procurement plan

Criteria 3-5. Sustainable procurement plan relating to the responsible sourcing of construction product for GóR-Stal needs to be prepared and followed. The documented policy and procedure must encourage the specification of products with responsible sourcing certification over similar products without certification.

Up to three credits - Responsible sourcing of construction products

Criterion 6. GóR-Stal products are responsibly sourced according to Guidance Note 18 (NL version): BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Exemplary level criteria

Criterion 7. GóR-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme. Number of credits achieved is determined based on table MAT03.1.

**BREEAM-DE New Construction 2018 v1.0** - Mat 03 Responsible sourcing of materials (all buildings), criteria: 2-6

One credit - Sustainable procurement plan

Criteria 2-4 Sustainable procurement plan relating to the responsible sourcing of construction product for GóR-Stal must be prepared and followed. The documented policy and procedure must encourage the specification of products with responsible sourcing certification over similar products without certification.

Up to three credits - Responsible sourcing of construction products

Criterion 5. GóR-Stal products are responsibly sourced according to Guidance Note 18 (DE version): BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Exemplary level criteria

Criterion 6. GóR-Stal products are responsibly sourced according to Guidance Note 18: BREEAM Recognised Responsible Sourcing Certification Schemes and BREEAM Scheme Applicability V3.5, which includes Environmental Management Systems (EMS), also EMS under ISO 14001.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme. Number of credits achieved is determined based on table 39.

Standard: BREEAM

Category: Materials

Credit: Mat 04

	BREEAM Int. 2013	BREEAM Int. 2016	BREEAM -SE 2017	BREEAM -NOR 2016	BREEAM -NL 2020	BREEAM -DE 2018
Mat 04	●					

» **BREEAM Int. New Construction 2013 v1.1** - Mat 04 Insulation (all buildings), criteria: 1-2

One credit

Criterion 1. Insulation materials need to be applied in one of the following building elements: external walls, ground floor or roof.

Criterion 2. Gór-Stal products are responsibly sourced according to table 42: Responsible Sourcing Certification Schemes and their Tier levels, which includes Environmental Management Systems (EMS), also EMS under ISO 14001. Key and supply chain process stages for foam insulation are shown in table 44. In order to obtain one credit at least 80% (by volume) of the thermal insulation in the assessed building must be responsibly sourced.

Note: In order to obtain points the BREEAM International Mat 03 tool must be completed, including quantity of the products, their categories and certification scheme.

Standard: LEED

Category: Materials and Resources

Credit: Building Product Disclosure and Optimization - Environmental Product Declarations

	LEED v4	LEED v4.1
MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations	●	●

» **LEED v4 BD+C New Construction** – MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations

Option 1. Environmental Product Declaration (EPD) (1 point)

Gór-Stal products are permanently installed products and are covered by product-specific Type III EPD. In order to obtain 1 point 20 different permanently installed products must be sourced from at least five different manufacturers.

» **LEED v4.1 BD+C New Construction** - MR Credit Building Product Disclosure and Optimization - Environmental Product Declarations

Option 1. Environmental Product Declaration (EPD) (1 point)

Gór-Stal are products permanently installed products and are covered by product-specific Type III EPD. In order to obtain 1 point 20 different permanently installed products must be sourced from at least five different manufacturers.



Standard: LEED

Category: Materials and Resources

Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials

	LEED v4	LEED v4.1
MR Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials	●	●

» **LEED v4 BD+C New Construction** – MR Credit Building Product Disclosure and Optimization – Sourcing of Raw Materials

Option 2. Leadership Extraction Practices (1 point)

This credit refers to termPIR MAX 19 product. In this product PIR core is made of processed PET bottles. Processed PET contains only polyol (28-25%). The product meets the recycled content criteria as the PET bottles are postconsumer waste and are valued at 100% of their cost for the purposes of credit achievement calculation. In order to get the point at least 25%, by cost, of the total value of permanently installed building products in the project must be used.

» **LEED v4.1 BD+C New Construction** - MR Credit Building Product Disclosure and Optimization – Sourcing of Raw Materials

(2 points)

This credit refers to termPIR MAX 19 product. In this product PIR core is made of processed PET bottles. Processed PET contains only polyol (28-25%). The product meets the recycled content criteria as the PET bottles are postconsumer waste. In order to get the point at least 30%, by cost, of the total value of permanently installed building products in the project must be used. The products must be sourced from at least five different manufacturers.

Standard: LEED

Category: Materials and Resources

Credit: Building Product Disclosure and Optimization – Material Ingredients

	LEED v4	LEED v4.1
MR Credit Building Product Disclosure and Optimization - Material Ingredients	●	

» **LEED v4 BD+C New Construction** - MR Credit Building Product Disclosure and Optimization - Material Ingredients

Option 3. Product Manufacturer Supply Chain Optimization (1 point)

Gór-Stal products are responsibly sourced as the manufacturer applies Integrated Management System and meets the requirements of ISO 14001 and ISO 9001 in terms of production of sandwich panels and thermal insulation panels with a polyurethane core, including PIR core, and the production of panels with mineral wool core. In order to obtain 1 point at least 25%, by cost, of the total value of permanently installed products must be used.

Standard: LEED

Category: Materials and Resources

Credit: Construction and Demolition Waste Management

	LEED v4	LEED v4.1
MR Credit Construction and Demolition Waste Management	●	●

» **LEED v4 BD+C New Construction** - MR Credit Construction and Demolition Waste Management

Option 1. Diversion (1–2 points)

According to the Environmental Product Declaration (EPD) 20% of termPIR products can be reused. If at least 50% of the total construction and demolition material is diverted and they include at least three material streams one point can be obtained. If at least 75% of the total construction and demolition material is diverted and they include at least four material streams one point can be obtained.

» **LEED v4 BD+C New Construction** - MR Credit Construction and Demolition Waste Management

Option 1. Diversion (1 point)

According to the Environmental Product Declaration (EPD) 20% of termPIR products can be reused. If at least 50% of the total construction and demolition material is diverted one point can be obtained.

Standard: LEED

Category: Indoor Environmental Quality

Credit: Low-Emitting Materials

	LEED v4	LEED v4.1
EQ Credit Low-Emitting Materials	●	●

» **LEED v4 BD+C New Construction – EQ Credit Low-Emitting Materials**

Option 1. Product Category Calculations (1-3 points)

According to table 1, 100% of thermal insulation must be compliant with emission standards. General emissions evaluation is required. Gór-Stal products are compliant with the emissions requirements. Limit Values of AgBB/ABG are met. The testing methods are accredited on line with EN ISO/IEC 17025. Points for number of compliant categories of products are obtained based on table 2.

OR

Option 2. Budget Calculation Method (1-3 points)

If some products in a category do not meet the criteria, project teams may use the budget calculation method. The budget method organizes the building interior into six assemblies, one of which is internal thermal insulation. Gór-Stal products are compliant with the emissions requirements. Limit Values of AgBB/ABG are met. The testing methods are accredited on line with EN ISO/IEC 17025. Points for percentage compliance, under budget calculation method are obtained based on table 3.

» **LEED v4.1 BD+C New Construction – EQ Credit Low-Emitting Materials**

Internal materials are assessed (everything within the waterproofing membrane). Insulation materials must meet the VOC emissions evaluation. Gór-Stal products are assessed according to option 2 as the products have been tested according to EN 16516 and comply with the LCI values from table 1 of the German AgBB Testing and Evaluation Scheme (2015) and a formaldehyde limit of 10 micrograms per cubic meter. The range of total VOCs after 28 is measured. The testing methods are accredited on line with EN ISO/IEC 17025. Points are awarded according to table 1.



## Green Building Experts

JW+A is a team of specialists in sustainable and ecological construction. We provide suggestions as to how to design, construct and operate buildings so that they would be economical and friendly – both for the environment as well as their users. Our customers are designers, contractors, building developers as well as building owners and managers.

Our advisory services can provide the following effects:

- » reduced building operation costs
- » optimisation of investment solutions
- » reduction of the negative influence of buildings on the environment
- » improvements in the quality of the environment inside the buildings

JW+A is a member of organisations of experts on green building and promoting sustainable development. These are the USGBC (U. S. Green Building Council), BRE (BRE Group Limited, UK body managing the BREEAM certification system), and the PLGBC (Polish Green Building Council). Our experts are also members of other industry bodies such as the Chamber of Architects of the Republic of Poland or the Urban Land Institute. JW+A experts are accredited as BREEAM International New Construction and BREEAM In-Use, International Assessors, certified specialists in the areas of BREEAM AP, WELL AP and LEED AP in the fields of design of buildings and retail interiors (meaning, BD+C and ID+C), they also hold unlimited design licences in the field of architecture.

### Contact details

JW\_A Sp. z o.o. Sp.k.



ul. Księża Ignacego Jana  
Skorupki 11/1  
31-519 Kraków



+48 512 595 635



team@jw-a.pl