

Product Declaration - DGNB Neubauversion Büro- und Verwaltungsgebäude 2012
MANUFACTURER NMC S.A.

PRODUCT NAME CLIMAFLEX®

Product Rating DGNB Criteria

- The product meets the requirements of quality level 1 to 4 and contributes to achieve 100 (of max. 100 achievable) checklist points according to criterion 'ENV1.2 Local Environmental Impact'.
- The product has an Environmental Product Declaration (EPD), which can be used for the life cycle assessment according to criteria 'ENV 1.1' and 'ENV2.1'.

Criterion ENV 1.2 Risks for the Local Environment - Ecological Quality
Quality Level 1 10 Checklist Points 
Quality Level 2 50 Checklist Points 
Quality Level 3 75 Checklist Points 
Quality Level 4 100 Checklist Point 
Criterion ENV 1.3.1 Sustainable Resources - Ecological Quality*
Quality Level 1 10 Checklist Points 
Quality Level 2 50 Checklist Points 
Quality Level 3 100 Checklist Points 

* This criterion is only applicable to wooden materials.

Criterion SOC 1.7 Safety and Security - Prevention from risks of fumes
Indikator 2.3 20 Checklist Points 
Product Characteristics

Pipe insulation made of closed-cell polyethylene foam made of NMC Naturefoam® with at least 50% renewable raw materials
 - in proven and established quality for heating and plumbing applications
 - Professional insulation and energy saving
 - Unique fire performance BLS1d0


Credit requirements fulfilled - the action level is achieved

Credit is not applicable to this product

X% of the product comply with the credit requirement

Required data not specified - for required data contact manufacturer

Credit requirements are not fulfilled
About DGNB Products - www.dgnb.de

This declaration helps to assess products easily according the certification system DGNB® Neubauversion Büro- und Verwaltungsgebäude (NBV12). Products are not reviewed or certified by DGNB. DGNB credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. Therefore the project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve DGNB points.

Above you find an explanation of the symbols. Detailed information are on the next pages.

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Product assessment of complete system

Topic	Number	Criteria	Relevance	Evaluation
Environmental Quality (ENV)	ENV1.1	Life cycle Assessment - Emissions	✓	An Environmental Product Declaration (EPD) does exist for this product.
	ENV1.2	Local environmental impact	✓	Quality Level 4 is fulfilled
	ENV1.3.1	Responsible procurement (Wood)		
	ENV1.3.2	Responsible procurement (Formwork)		
	ENV1.3.3	Responsible procurement (Natural Stone)		
	ENV2.1	Life cycle Assessment - Primary Energy	✓	An Environmental Product Declaration (EPD) does exist for this product.
	ENV2.2	Potable water demand and wastewater volume		
	ENV2.3	Land Use		
Economic Quality (ECO)	ECO1.1	Building-related life-cycle costs		
	ECO2.1	Suitability for conversion		
	ECO2.2	Marketability		
Sociocultural and Functional Quality (SOC)	SOC1.1	Thermal Comfort		
	SOC1.2	Indoor Air Quality		
	SOC1.3	Acoustic Comfort		
	SOC1.4	Visual Comfort		
	SOC1.5	Occupant control		
	SOC1.6	Quality of outdoor spaces		
	SOC1.7	Safety and security		
	SOC2.1	Access for all		
	SOC2.2	Public access		
	SOC2.3	Cyclist facilities		
	SOC3.1	Design and urban quality		
	SOC3.2	Integration of public art		
	SOC3.3	Floor Plan Qualities		
	Technical Quality (TEC)	TEC1.1	Fire prevention	
TEC1.2		Noise protection		
TEC1.3		Building envelope quality		
TEC1.4		Adaptability of Technical Systems		
TEC1.5		Ease of cleaning and maintenance		
TEC1.6		Ease of dismantling and recycling		
TEC1.7		Sound immission control		
Process Quality (PRO)	PRO1.1	Comprehensive project brief		
	PRO1.2	Integral design		
	PRO1.3	Design concept		
	PRO1.4	Sustainability aspects in tender phase		
	PRO1.5	Documentation for Facility Management		
	PRO2.1	Environmental impact of construction		
	PRO2.2	Construction quality assurance		
	PRO2.3	Systematic commissioning		
Site Quality (SITE)	SITE1.1	Site location risks		
	SITE1.2	Public image and social conditions		
	SITE1.3	Access to transportation		
	SITE1.4	Access to specific-use facilities		

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Product assessment for criteria ENV1.2 - Local environmental impact

The product fulfills the requirements for Quality Level 1-4

Assessment: **Quality Level 4**

Goals and Relevance

Certain materials, construction products and preparations are a risk for soil, air, groundwater and surface water as well as for human's health, flora and fauna. In order to minimize risks for humans and the local environment, materials, (construction) products and preparations need to be reduced, avoided or substituted, which due to their material properties or ingredients are a risk for surface and ground water, soil or air. Especially those materials, (construction) products and preparations must be reduced, avoided or replaced, which affect human health, flora and fauna or harm within a short-, medium / or long-term period. This affects the entire life cycle - from production, processing at site, use of (building) inventory and disposal (dismantling, recycling, landfilling). These local risks are assessed material and product related. Hence eco-and human toxicological impact categories of LCA can not be applied due to lack of evaluation and measurement procedures.

Product Assessment

	Relevant Products	Requirements of Quality Levels	Assessment of Product	Evaluation
28	Plastics for coating of surfaces (floor and wall) and components on the facade Subject: resilient flooring (PVC, rubber, etc.), wall coverings and plastic windows	Quality Level 1 Content of lead and tin <0.1% Quality Level 2 Content of lead and tin <0.1% Quality Level 3 Content of lead and tin <0.1% Quality Level 4 Content of lead and tin <0.1%	The content of lead and tin is < 0.1% (plastics).	Quality Level 4
29	Plastics foam insulation products for buildings and building services Subject: PS/XPS/PU insulation products, flexible TGA insulations (rubber and PE)	Quality Level 1 Free of halogenated blowing agents Quality Level 2 Free of halogenated blowing agents Quality Level 3 Free of halogenated blowing agents Quality Level 4 Free of halogenated blowing agents	The product is free of halogenated blowing agents.	Quality Level 4

Other remarks on classification

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Product assessment for criteria SOC1.7 - Safety and Security

The product fulfills the requirements for prevention of fumes.

Assessment: [see explanation](#)

Goals and Relevance

A high sense of security contributes fundamentally to the comfort of human being. The goal is to avoid dangerous situations as much as possible and to reduce the impact of a non-preventable damage, as far as possible. The criterion safety and security assesses also the performance of products in case of fire.

Product Assessment

	Relevant Requirements	Requirements of Quality Levels	Assesment of Product	Evaluation
2.3	Prevention from risks of fumes	20 Checklist Points The product does not lead to toxic or corrosive fumes in case of fire	An assessment of the Product in this indicator can only be made on a project-specific basis.	see explanation

Other remarks on classification

Requirement indicator 2.3 Avoidance of risks involving combustible gases:

Construction materials are to be avoided if they contain materials (halogens, etc.) that lead to caustic or corrosive fumes in the case of fire. Swift removal of fumes must be ensured.

Alternatively, it is possible to reduce the fire risk for such construction materials through design measures (partitioning, embedding in non-flammable materials).

Documentation required:

- Information on contents (such as e. g. halogen content) of the construction materials used in order to be able to evaluate a possible risk involving combustible gases.

Construction materials to be considered are:

- Surfaces in the room (touchable) in accordance with component catalogue of the life cycle analysis
- Ceiling and floor structures which are not sealed against fumes, e. g. acoustic screens and removable false floor pathways
- All materials which are installed 90 % on the aforementioned areas or cavities. Installations rooms are excepted from the consideration.

Wall coverings, wall coatings, floor coverings, painted surfaces, doors, ceiling elements, ceiling systems, insulating materials, and cables are thus to be taken into consideration as a rule.

- Verification through manufacturer declarations, the evaluation of the materials used by an expert in the field of pollution or analytical verifications.

Assessment of Product:

An assessment of the Product in the indicator "2.3 Avoidance of risks involving combustible gases" can only be made on a project-specific basis.

The product contains halogens, but the fire risks can be reduced in certain areas of application by design measures (partitioning, embedding in non-flammable materials). This alternative option for the fulfillment of the indicator 2.3 Avoidance of fire gas risks must be demonstrated in the specific project.

If the product is only used in installation rooms, the product is not considered (Installations rooms are excepted from the consideration).

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The product contains the following components:

**Mass per
unit [%]**

K1	CLIMAFLEX®
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~ 100%