# KOMO® Quality Declaration

SGS INTRON Certificatie B.V.

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**Number:**
**CTG-724/1**
**Published on:**
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**Valid until:**
**Indefinitely**
**Replaces:**
**-**

## termPIR

Sheets of laminated rigid polyisocyanurate foam (PIR) for the manufacture of thermal cavity insulation

Certificate holder:

## Gór-Stal sp. z o.o.

**REGISTERED ADDRESS:**

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**Declaration made by SGS INTRON CERTIFICATIE B.V.**

This Quality Declaration for Product Certification and Attestation is based on Assessment Directive 1304 "Thermal Insulation in Facade Constructions" Part 1, dated 30/01/2013 “General Provisions", including the Amending Leaflet, dated 31/12/2014, as well as Part 2, dated 30/01/2013 "Specific Provisions concerning Thermal Insulation in Stony Cavity Wall Facades", including the Amending Leaflet, dated 31/12/2014, issued in accordance with the SGS INTRON Certification Regulations for Certification and Attestation.

The quality system and product characteristics associated with termPIR are checked periodically. On this basis, **SGS INTRON Certificatie B.V. declares that**:

- There is justified confidence that the termPIR@AL sheets manufactured and delivered by Gór-Stal sp. z o.o. meet the technical specifications and all product characteristics and requirements laid down in this Quality Declaration upon delivery, provided that they bear the KOMO® label in a manner indicated herein.
- The essential characteristics set out in Annex ZA to the applicable harmonised European standard are not part of this declaration.
- Cavity wall insulation systems composed with termPIR@AL sheets provide the performance described in the KOMO® Quality Declaration and comply with the requirements of the Buildings Decree included herein, provided that:
    - The technical specification and application conditions laid down in the KOMO® Quality Declaration are met.
    - Cavity wall insulation systems are manufactured in accordance with the regulations and/or processing methods laid down in the KOMO® Quality Declaration.

SGS INTRON Certificatie B.V. declares that, with due observance of the above, termPIR@AL complies in its application with the requirements of the Buildings Decree as specified in this Quality Declaration.

Within the framework of the KOMO® Quality Declaration, no checks of the manufacture of other components of cavity wall insulation systems are performed; neither is the composition of and/or the installation in cavity wall insulation systems checked in any way.

For SGS INTRON Certificatie B.V.

Eng. J.W.P. de Bont
Certification Manager

Users of this Quality Declaration are advised to enquire at SGS INTRON Certificatie B.V. whether this document is still valid. The valid certificates are listed on the website www.sgs.com/intron-certificatie

The certificate is also included in the overview on the website of the KOMO Foundation: www.komo.nl

This Quality Declaration consists of 1 cover page, 9 pages and 1 annex

**Object of review:**
**Product Quality System**
**Product Performance in application**
**Periodic Control**

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## KEY POINTS OF THE BUILDING DECREE

| No. | Section | Threshold/Method of Determination | Performance Requirements | Comments on Application |
|---|---|---|---|---|
| **2.8** | Limiting the occurrence of a fire hazards | Inflammability, fire class A1 in accordance with NEN-EN 13501-1 | - Not examined | Limit value applies to material used on site or in the vicinity of a furnace room. |
| **2.9** | Limiting the development of fire and smoke | In case of a non-ventilated or weakly ventilated facade: No requirement for insulation materials<br>In case of strongly ventilated facade: Class A1, B, C or D in accordance with NEN EN 13501-1<br>At least smoke class s2 in accordance with NEN-EN 13501-1 | - Not examined | The fire behaviour is determined by the total cavity wall construction.<br>In the case of highly ventilated facades, Euro class limits apply to the thermal insulation material, depending on the altitude.<br>The limit value for the smoke class only applies in the case of a protected escape route. |
| **2.10** | Limiting the spread of fire | Resistance to fire penetration and fire spread of facade construction depending on the situation, but not less than 30 minutes in accordance with NEN 6068 | - Not examined | The resistance to fire is determined by the total construction. |
| **3.1** | Protection against external noise | Characteristic soundproofing facade construction depending on the situation > 18 dB(A) in accordance with NEN 5077 | - Not examined | Characteristic noise protection is determined by the entire facade construction |
| **3.5** | Moisture protection | Waterproof in accordance with NEN 2778 | - Not examined | Insulation material does not determine the waterproofness of a facade construction, provided that there is no contact between the outer cavity leaf and the insulation. For the partially filled cavity, instructions have been included which guarantee an effective air cavity of at least 10 mm. It is also indicated that care must be taken to ensure pressure equalisation, for example by applying open butt joints |
| | | Interior surface temperature factor ≥ 0.5 or 0.65 in accordance with NEN 2778 | - Not examined | As the facade structure has a thermal resistance (Rc value) of 3.5 $m^2K/W$, the required temperature factor is achieved, provided that the structure is designed correctly, in accordance with the principles of building physics, without the presence of thermal bridges. |
| **5.1** | Energy efficiency | Air volume flow (of total areas and rooms) ≤ 0.2 in accordance with NEN 1068 | - Not examined | The insulation material does not determine the limitation of air permeability. |
| | | Heat resistance Rc ≥ 3.5 $m^2$. K/W according to NEN 1068 and NPR 2068 | Application examples, calculated in accordance with NEN 1068 and NPR 2068, that comply with Rc ≥ 3.5 $m^2$.K/W. | |

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## CHANGES COMPARED TO PREVIOUS VERSION[1)]

Not applicable: this is the first version of the KOMO® Quality Declaration.

## TECHNICAL SPECIFICATION AND LABELS

**Product Specifications**
The products covered by the KOMO® Quality Declaration are:

| Brand name | Code[1)] | Description |
|---|---|---|
| termPIR@AL | 14PIR55 | Sheets of rigid polyisocyanurate foam, laminated with aluminium foil on both sides |

1) See Annex 1 for an explanation of the coding system

The delivery details of the products are provided in Table 1.

**Table 1: Delivery Details**

| Feature | Method of Determination | Value |
|---|---|---|
| Thickness | NEN-EN 13165 | 20 mm - 250 mm |
| Length x width[1)] | NEN-EN 13165 | 2400 mm x 1200 mm<br>1200 mm x 1200 mm<br>600 mm x 1200 mm |

1) Different lengths are possible in consultation with the manufacturer (600 mm - 6,000 mm).

**Packaging:**
termPIR insulation sheets are supplied on stacks in parcels equipped with a foil. On the underside of the stacks, there are 3 EPS pads with a thickness of 80 mm. The parcels with insulation material must be stored carefully. If stored outdoors, the parcels and/or sheets must be protected against weather influences by means of, for example, a tarpaulin. The number of sheets per parcel is not always the same, depending on the thickness of the sheets.

**Product Characteristics and Product Requirements**
The appearance of the product must be flawless. This means no large holes, no breakage and no uneven edges. The other requirements for products are laid down in table 2.

**Table 2: termPIR@AL Product Requirements**

| Paragraph | Assessment Aspect | Application-related Requirement<br>Class, Level of Specified Requirement | | | | | Starting points for the Quality Declaration |
|---|---|---|---|---|---|---|---|
| NEN-EN-13165<br>§ 4.2.2 | Length and width tolerance | - | < 1000 | > 1000 up to ≤ 2000 | > 2000 up to ≤ 4000 | < 4000 | - |
| | | | ± 5 mm | ± 7.5 mm | ± 10 mm | ± 15 mm | |
| NEN-EN-13165<br>§ 4.2.4 | Squareness | $S_b$ | $S_b \leq 6$ mm/m | | | | In accordance with requirement |
| NEN-EN-13165<br>§ 4.2.5 | Flatness | S (max.) | ≤ 0.75 m² | | > 0.75 m² | | In accordance with requirement |
| | | | ≤ 5 mm | | ≤ 10 mm | | |
| BRL 1304<br>chapter 5.2 | Straightness of the sides | - | Deviation from a straight line is max. 1 mm | | | | In accordance with requirement |
| NEN-EN-13165<br>chapter 4.3.2. | Dimensional stability<br>- 1 (48 h, 70 °C and 90% RH)<br>- 2 (48 h, -20 °C ) | DS(70,90)3<br>DS(-20,-)1 | $\Delta\varepsilon_l$ | | $\Delta\varepsilon_b$ | | |
| | | | ≤ 2 % | | ≤ 2 % | | In accordance with requirement |
| | | | ≤ 1 % | | ≤ 1 % | | $\Delta\varepsilon_l$ and $\Delta\varepsilon_b \leq 0.5\%$ (level 2) |
| BRL 1304<br>chapter 3.3.2. | Rebate dimensions (type LAP)<br>- size A<br>- size B<br>See figure below | - | Max. + 3 and – 0 mm relative to middle of sheet<br>Max. + 0 and – 3 mm relative to the manufacturer's declaration | | | | |
| | Rebate dimensions (type LAP) | See figure below | | | | | See figure below |

Figure rebate LAP:

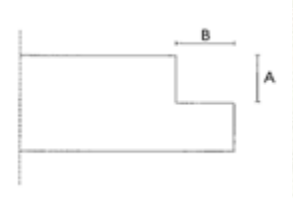
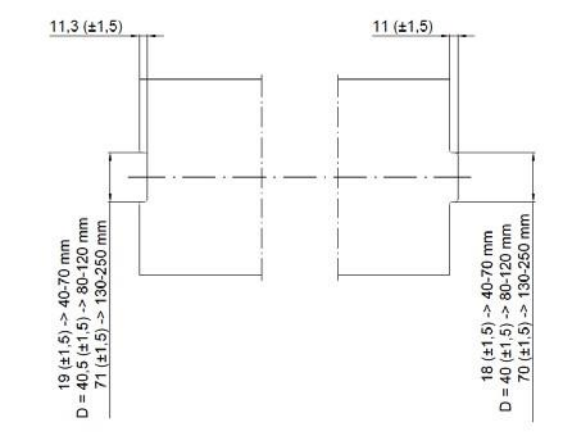



Figure rebate TAG




**Labels**

The product or its packaging is marked with the KOMO® label. The label looks as follows:

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Other compulsory particulars:

- brand name or other identification label
- name and address of the manufacturer or their representative
- year of production (last two digits)
- production code for traceability purposes
- nominal thickness (see table 1)
- length and width (see table 1)
- number of units and surface in packaging (if applicable)
- type of lamination
- certificate number CTG-724

## PERFORMANCE

Checks in relation to the performance requirements listed in Assessment Guideline 1304 Part 1 and Part 2 have yielded the following findings.

***Safety***

*General strength of the building structure*
The insulation material does not determine the overall strength of the cavity wall construction.

*Limitation of the occurrence of fire hazards*
Not examined; the material is not applied on site, in the vicinity of a furnace room or on the inside of a shaft.

*Limiting the development of fire and smoke*
Not examined; the fire behaviour is determined by the total cavity wall construction. Application of the insulation material in highly ventilated facade constructions is excluded.

*Limitation of the spread of fire*
Not examined; the fire resistance is determined, among other things, by the composition of the total cavity wall construction. As a result, no requirement is placed on the insulation material with regard to this performance.

***Health***

*Protection against external noise*
Not examined. The determination of the characteristic noise protection is determined by the composition of the total cavity wall construction.

*Moisture protection*
The insulation material does not determine the waterproofness of the facade construction, provided that there is no contact between the outer cavity leaf and the insulation. For the partially filled cavity, instructions have been included which guarantee an effective air cavity of at least 10 mm. It is also indicated that care must be taken to ensure pressure equalisation, for example by applying open butt joints.

As the façade structure has a thermal resistance (Rc value) of 3.5 $m^2K/W$, the required temperature factor is achieved, provided that the structure is designed correctly, in accordance with the principles of building physics, without the presence of thermal bridges.

***Energy Efficiency***

*Thermal insulation*
The following application examples, in accordance with Assessment Directive 1304 Part 1 and Part 2, have been calculated on the basis that the termPIR@AL has a thermal conductivity coefficient of 0.022 W/mK.
The calculations were carried out in accordance with the so-called manual calculation method in accordance with NEN 1068, whereby the correction on cavity anchors was also determined in accordance with NEN 1068.

<u>Cavity wall, structure 1 without emission coefficient</u>
- Sand-lime brick or masonry inner sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K.
- Cavity insulation, fastened with 4 stainless steel cavity anchors per $m^2$, ∅anchor = 4.0 mm, $\lambda_{calc}$ = 15.000 W/m.K.
- Air cavity, non-ventilated, design cavity width ≥ 20 mm, $R_m$ = 0.18 $m^2K/W$.
- Masonry outer sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K
- $R_{si}$ = 0.13 $m^2K/W$, $R_{se}$ = 0.04 $m^2K/W$,
- Correction factor: $\alpha$ = 0.05

<u>Cavity wall, structure 2 without emission coefficient</u>
- Inner sheet concrete building, thickness 160 mm, $\lambda_{calc}$ = 2.000 W/m.K
- Cavity insulation, fastened with 4 stainless steel cavity anchors per $m^2$, ∅anchor = 4.0 mm, $\lambda_{calc}$ = 15.000 W/m.K.
- Air cavity, non-ventilated, design cavity width ≥ 20 mm $R_m$ = 0.18 $m^2K/W$.
- Masonry outer sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K
- $R_{si}$ = 0.13 $m^2K/W$, $R_{se}$ = 0.04 $m^2K/W$,
- Correction factor: $\alpha$ = 0.05

| Heat resistance without termPIR@AL emission coefficient | | | |
|---|---|---|---|
| **Structure 1** | | **Structure 2** | |
| **termPIR@AL** | | **termPIR@AL** | |
| **Insulation thickness (mm)** | **$R_c$** | **Insulation thickness (mm)** | **$R_c$** |
| 80 | 3.71 | 80 | 3.69 |
| 90 | 4.13 | 90 | 4.11 |
| 100 | 4.54 | 100 | 4.53 |
| 110 | 4.95 | 110 | 4.93 |
| 120 | 5.37 | 120 | 5.35 |
| 140 | 6.12 | 140 | 6.10 |
| 150 | 6.53 | 150 | 6.52 |
| 160 | 6.94 | 160 | 6.93 |
| 180 | 7.76 | 180 | 7.74 |
| 190 | 8.17 | 190 | 8.15 |
| 200 | 8.59 | 200 | 8.57 |

*Emission coefficient*
In accordance with NEN 1068, it is possible to take into account the contribution of the reflective effect of the aluminium coating. The thermal resistance of the air cavity is set at 0.57 $m^2$.K/W.
This thermal resistance of the air cavity is calculated in accordance with NEN-EN-ISO 6946, with a safe value for the emission coefficient (taking into account some pollution and/or ageing) of $\varepsilon = 0.1$.

Remark: The correction taken into account for pollution and/or ageing is an assumption. The standards in question do not make representations with regards to a correction factor to be applied.

Cavity wall, structure 1 with emission coefficient[1)]
- Sand-lime brick or masonry inner sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K
- Cavity insulation, fastened with 4 stainless steel cavity anchors per $m^2$, ∅anchor = 4.0 mm, $\lambda_{calc}$ = 15.000 W/m.K
- Air cavity, non-ventilated, design cavity width ≥ 20 mm $R_m$ = 0.57 $m^2$K/W
- Masonry outer sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K
- $R_{si}$ = 0.13 $m^2$K/W, $R_{se}$ = 0.04 $m^2$K/W
- Correction factor: $\alpha$ = 0.05

1) In case of an air cavity other than those included in the examples above, the contribution of the reflective effect of the lamination must be verified.

Cavity wall, structure design 2 with emission coefficient[1)]
- Inner sheet concrete building, thickness 160 mm, $\lambda_{calc}$ = 2.000 W/m.K
- Cavity insulation, fastened with 4 stainless steel cavity anchors per $m^2$, ∅anchor = 4.0 mm, $\lambda_{calc}$ = 15.000 W/m.K
- Air cavity, non-ventilated, design cavity width ≥ 20 mm $R_m$ = 0.57 $m^2$K/W
- Masonry outer sheet, thickness 100 mm, $\lambda_{calc}$ = 1.000 W/m.K
- $R_{si}$ = 0.13 $m^2$K/W, $R_{se}$ = 0.04 $m^2$K/W
- Correction factor: $\alpha$ = 0.05

1) In case of an air cavity other than those included in the examples above, the contribution of the reflective effect of the lamination must be verified.

| Heat resistance without termPIR@AL emission coefficient | | | |
|---|---|---|---|
| **Structure 1** | | **Structure 2** | |
| **termPIR@AL** | | **termPIR@AL** | |
| **Insulation thickness (mm)** | **$R_c$** | **Insulation thickness (mm)** | **$R_c$** |
| 70 | 3.66 | 70 | 3.64 |
| 80 | 4.08 | 80 | 4.06 |
| 90 | 4.50 | 90 | 4.48 |
| 100 | 4.92 | 100 | 4.90 |
| 110 | 5.33 | 110 | 5.31 |
| 120 | 5.74 | 120 | 5.73 |
| 130 | 6.18 | 130 | 6.17 |
| 140 | 6.49 | 140 | 6.47 |
| 150 | 6.91 | 150 | 6.89 |
| 160 | 7.32 | 160 | 7.30 |
| 180 | 8.13 | 180 | 8.12 |
| 190 | 8.54 | 190 | 8.53 |
| 200 | 8.96 | 200 | 8.94 |

*Restriction of air permeability*
The air flow of a cavity wall construction is determined by the connection details. The insulation material does not determine the limitation of the air permeability.

*Energy performance*
The thermal insulation material makes an important contribution to the energy efficiency of the building.
When calculating the energy performance coefficient, the contribution of the thermal insulation can be derived from this Quality Declaration.

## PROCESSING DIRECTIVES AND DETAILS

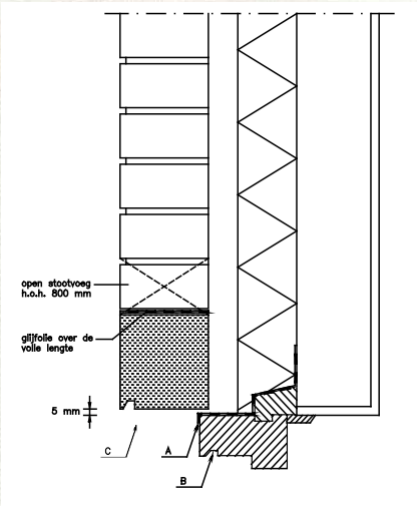
**General Aspects**

Storage
The parcels containing the insulation sheets should be stored carefully and off of the ground, horizontally, and in such a way as to prevent damage in any form. If the sheets are stored outside, they must be protected from the weather.

Requirements for the outer cavity leaf
In order to allow adequate drainage of any moisture penetrating the cavity, there must be sufficient openings in the outer cavity leaves at the following locations:
- above the onset of the cavity on the foundation;
- above the lintels;
- above any other interruption.

These drain openings must be located immediately above the waterproof membrane (a strip of lead, a strip of EPDM or a strip of DPC foil) (see figure 1).
The strips of this waterproof membrane must be applied with an overlap of at least 20 cm.

**Figure 1**




A. by releasing the angle profile a few millimetres from the frame, a dripping edge is created;
B. a water hole in the frame prevents water from getting onto the window pane;
C. in the case of a concrete lintel, water that runs off the facade can be diverted earlier.

In case of a cavity with a vapour-tight outer cavity leaf, there must also be ventilation openings at the top of the wall and under each interruption of the cavity, in addition to the openings already mentioned.

Finally, care must be taken to ensure that:
- the processed facade bricks are frost-resistant;
- thermal bridges are excluded;
- the jointing is of good quality.

The cavity leaves must be finished flat so that a good connection of the insulation sheets can be achieved. The applicable directives and regulations for inner and outer cavity leaves must be observed at all times.
The following procedure is used when erecting the cavity walls:
- pulling up the inner cavity leaf;
- placing the insulation material (pressing against the inner cavity leaf);
- pulling up the outer cavity leaf.

**Application of the insulation sheets**

Apply the sheets securely, preferably in a stretcher bond, with the long side horizontally against the inner cavity leaf. The side with the low emissivity facing forwards.

The space between the insulation material and the outer cavity leaf must in fact be at least 10 mm. An effective air cavity is defined as the space between the insulation material and the mortar snots or any other unevenness on the cavity side of the outer cavity leaf.
In the case of sheets with a rebate, the rebate must be drained. All grout inside the cavity or on the sheets must be removed. In order to ensure a good connection of the insulation sheets, protruding mortar joints must be touched up.

A good connection with frames must be ensured. At the corners, the insulation must be extended while maintaining its nominal thickness.

During the work, the walls under construction must be protected against adverse weather conditions. In the event of work interruptions, temporarily cover the walls.

Fitting pieces must only be sawn or cut to size. Any cracks or damages in the insulation layer must be adequately filled.

**Cavity wall anchors / Fasteners**
Cavity wall anchors must be installed to support the insulation sheets and press them firmly against the inner cavity sheet.

The following implementation guidelines are relevant here:
- the maximum distance between the anchors should be 600 mm, both horizontally and vertically;
- the anchors should be mounted sloping downwards and outwards (see figure 2);
- clamping pieces must be fitted to the cavity anchors to press the insulation panels against the inner cavity sheet. Other fixing systems may also be used for this purpose (see figure 3);
- at least 4 fixing points per m² must be applied. Additional anchors should be fitted at the corners of the walls.

**Figure 2**

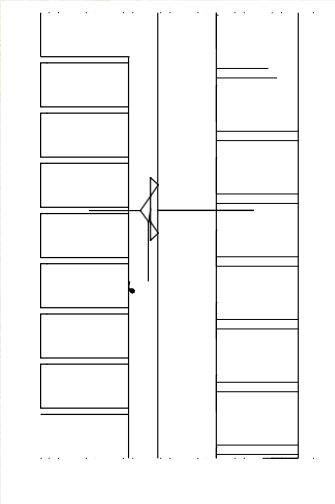
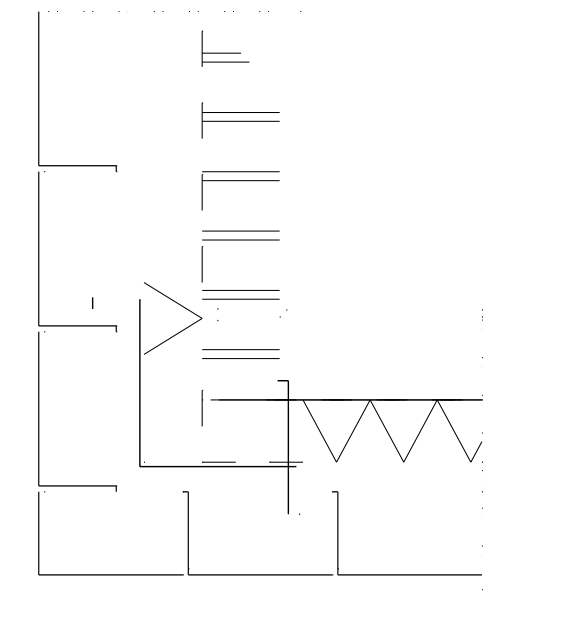


**Figure 3**



The sheets must be fastened at least at three points. These fasteners must be evenly distributed across the sheet. The following types of cavity anchors, among others, are suitable for fixing the insulation sheets:

- Traditional masonry or adhesive anchors with a profiled end. These anchors are applied evenly with the masonry of the inner cavity. When using these anchors, it is advisable not to apply the sheets until 1 day after the cavity anchors have been mounted into the inner cavity sheet. At the anchors, cut the sheets' lamination with a knife in such a way as to place the sheets against the inner cavity without damaging anything.
- To prevent damage to the insulation sheet, the cavity anchors can be bent slightly downwards, after which the insulation sheet is pushed over the anchor, resting on the insulation sheet underneath it.
- Other fixing systems may also be used. These must comply with the applicable guidelines.
- After the insulating material has been applied over the anchors, the sheets must be permanently fixed to the inner cavity sheet by clamping an appropriate clip onto the anchors or by means of other commercially available plastic clamping discs with a diameter of at least 70 mm.
- Drill anchors may also be used. These anchors are fitted using special plugs after the inner cavity sheet has been pulled up.

**Corner connection**
In case of surrounding walls, the sheets must be allowed to protrude. Then the surrounding insulation layer can be applied. It must fit well, after which the protruding part can be cut off straight.

**Finishing**
To avoid narrow strips, the top sheets can be applied with the long sides placed vertically. Cut off the protruding parts.

**Fittings / Padding**
Fitting pieces and randomly shaped pieces are cut to size with a hand saw or a knife and applied securely. Any open seams between the fitting pieces and the sheets must be closed off with a suitable polyurethane foam.

**Interruption of work**
During work interruptions, the applied insulation layer must be protected against weather influences. When covering it all with, for example, scaffolding planks or a foil is generally sufficient.

**Repairs**
If products are damaged after application, they must be replaced.

## HINTS FOR THE USER

1. Upon delivery of:
   1.1. the certified product, verify whether:
   - the delivery matches what was agreed;
   - the label and the method of labelling are correct;
   - the product does not exhibit any visible defects as a result of transport and so forth;

   1.2. the other products listed in the "technical specification":
   - check whether they comply with the specifications
   - in so far as these products have been delivered under a Quality Declaration issued by a certification body recognised by the Accreditation Council, check whether the label and the manner of labelling are correct and that the products do not exhibit any visible defects as a result of transport and so forth.

2. Within the context of this Quality Declaration, the performance accuracy of the essential characteristics shall not be verified.

3. The statements in this Quality Declaration must not be used as a substitute for the CE marking and/or the accompanying mandatory declaration of performance.

4. Check whether the KOMO® Quality Declaration is still valid; consult the applicable overview of Quality Declarations or contact SGS INTRON Certificatie B.V.

5. Observe the design details included in the KOMO® Quality Declaration.

6. Storage, transport, and processing must be carried out in accordance with the regulations included in the KOMO® Quality Declaration.

7. Storage and transport must be in accordance with the processing instructions of the certificate holder.

8. Observe the application conditions, processing and maintenance instructions.

9. In case of rejection on the basis of the provisions under 1.1, please contact: **Gór-Stal sp. z o.o.**
and, if necessary: SGS INTRON Certificatie B.V.

## REFERENCES

In so far as no dates are given, the correct dates of publication of the said documents are provided in the Assessment Directive 1304 Part 1 and 2.

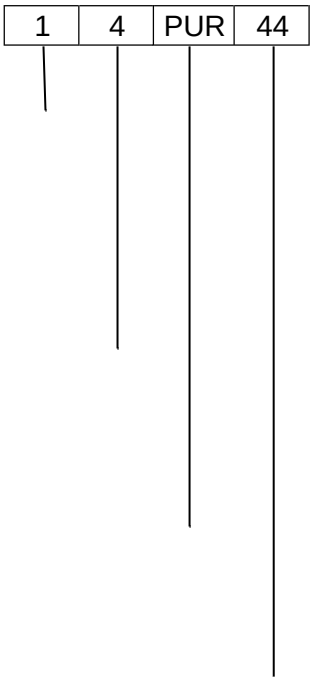
1. Assessment Directive 1304 -1 - Factory made products in cavity walls, part 1: General provisions;
2. Assessment Directive 1304 -2 - Factory made products in cavity walls, part 2: Specific provisions concerning thermal insulation in stony cavity wall facades
3. SGS INTRON Certificatie B.V. regulations for certification and attestation;
4. State Gazette of the Kingdom of the Netherlands 657 - Decree of 25 October 1995 laying down rules relating to Ozone Depleting Substances (Decree on Ozone Depleting Substances);
5. NEN 1068: Thermal insulation of buildings (+ Amendment A1) - Calculation method;
6. NEN 2778: Moisture control in buildings; Methods of Determination;
7. NEN 2877: Test methods for the determination of the waterproofness of separation structures;
8. NPR 2068: Thermal insulation of buildings - Simplified calculation methods;
9. NEN 6061: Determination of resistance to the occurrence of fire in furnace rooms, including modification sheet A1;
10. NEN 6064: Determination of the non-combustibility of building materials, including Amendment A1;
11. NEN 6065: Determination of the contribution to fire propagation of building materials, including Amendment A1;
12. NEN 6066: Determination of smoke production in case of fire from building materials, including Amendment A1;
13. NEN 6068: Determination of resistance to fire propagation and fire spread between rooms, including Amendment A1;
14. NEN 6090: Determination of the fire load, including Amendment A1;
15. NEN 6700: Technical bases for building structures TGB 1990 - General basic requirements, including Amendment A1;
16. Building Decree 2011 State Gaz. 2011, 416, 676.

# KOMO® Quality Declaration

**termPIR**
**Number : CTG-724/1**
**Published : 31/03/2020**

**Annex 1**

**Product coding**




**Shape of the insulation material** (one digit)

1 = sheets, bottom and top parallel
2 = sheets with a one-sided slope
3 = sheets with a two-sided slope
4 = swaths, top and bottom parallel
5 = swaths with a one-sided slope
6 = granules or fibres

**Application of the insulation material** (one digit)
1 = compressible
2 = non-pressure-loadable
3 = pressure-loadable
4 = pressure-loadable and delamination-loadable

**Type of insulating material** (for combined insulating materials top layer front)
PIR = rigid polyisocyanurate
MWG = glass wool

**Finishing** (two digits, finishing top side first)
0 = none
1 = naked glass fleece
2 = mineral-coated glass fleece
3 = bituminous glass fleece/not suitable for torching method
4 = bituminous glass fleece/suitable for torching method
5 = aluminium foil
6 = kraft paper
7 = bituminous polyester mat/suitable for torching method
8 = bitumen impregnated paper
9 = bitumen