# KOMO<sup>®</sup> productcertificate



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Valid until	Indefinite	Page	1 van 2

# Cement-bonded spacers

# Molenaar Betonindustrie B.V.

### VERKLARING VAN KIWA

This product certificate was issued on the basis of evaluation guideline BRL 2817 'Cementbonded spacers' d.d. 2012-11-16, in conformity with the Kiwa Regulations for Product Certification.

Kiwa declares that the spaces deliverd by the certificate holder may be relied upon to meet the technical and environmental specifications defined in this product certificate on delivery, provided that they have been labelled with the KOMO® quality mark as indicated in this product certificate;

Kiwa declares that the concrete construction elements if applied under the above-mentioned conditions will comply with the applicable requirements of the Dutch Decree on soil quality (Besluit bodemkwaliteit).

Kiwa declares that within the framework of this product certificate, Kiwa does not carry out any inspections on the use in the structures itself and the user's obligation to report and/or send information to the competent authority.

For the Decree on soil quality, this is a certificate approved by VROM (Ministry of Spatial Planning, Housing and the Environment) and V&W ministers if the certificate is listed in the "List of approved quality certificates in the building industry" on the SBK website (SBK: Foundation for Building Quality) www.bouwkwaliteit.nl and the Bodem+ website www.bodemplus.nl.

Bouke Meekma Kiwa

The certificate is included in the summary on the website of KOMO: www.komo.nl. Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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**Decree on soil quality** 

The following has been evaluated: quality system product Periodic check

## **Cement-bonded spacers**

#### TECHNICAL SPECIFICATION AND SPECIFICATION CONCERNING ENVIRONMENTAL PROTECTION

#### Subject

Construction concrete elements can be used as spacers in structural concrete elements or concrete structures for constructions which can be in contact with rain, ground water and/or surface waters.

#### **Technical specification**

The cement-bonded spacers are manufactured on the production site concerned on the basis of the applicable regulations for concrete and mortar and the composition requirements as stated in the evaluation guideline BRL 2817.

The water-cementfactor of concrete or mortar shall not exceed 0.45.

The compressive strength is at least 45 N/mm<sup>2</sup>.

The maximum water penetration into the cement-bonded spacers is determined according to EN 12390-8, as the average of the maximum values of three test specimens and shall not exceed 25 mm. This is not applicable for spacers used in environmental class X0 and XC1.

#### Specifications concerning environmental protection

The average composition values determined in conformity with AP 04-SB and the average emission determined in conformity with AP04-U comply with respect to the intended application area with annex A of the Soil Quality Regulations.

#### Marks and indications on the delivery documents

The following marks and indications shall be inscribed on sound and clear manner on the product or packaging:

- Manufacturer's name and / or trademark;
- Date of manufacture or coding;
- Type designation (including working height);
- KOMO <sup>®</sup> logo and certificate number, see figure opposite;
- Environmental class;
- Strength class.



The quality mark and the production date are attached to the product and/or the packaging and/or delivery documents. On the delivery documents, it must be stated that the product meets the Soil Quality Decree (Besluit Bodemkwaliteit), or it must be marked with the KOMO<sup>®</sup> brand.

#### TIPS FOR THE USER

At the receipt of the delivery inspect these for the following:

- whether the delivery is consistent with the order;
- whether the quality mark and the manner of marking are correct;
- whether the products do not show any visible defects as a result of transport or handling.

If you reject products on the basis of these specifications, please contact:

• Molenaar Betonindustrie B.V.

- and if necessary:
- Kiwa Nederland B.V.

Refer to the Product Data Sheet / overview of the certificate to authenticate the product.

For the proper storage, transportation and processing, consult the processing requirements of the certificate holder.

Hand over the evidence (delivery receipts / land certificate and certificate) to the client. This does not apply to delivery to individuals other than in the course of a profession or business.

#### TIPS FOR THE CLIENT

Keep the evidence (delivery documents, evidence of ground and this certificate) at least 5 years to be shown to authorities. This does not apply with delivery to individual persons who are not practising their job or company.

#### CONSTRUCTION PRODUCT REGULATION

If a European harmonized technical specification applies on a construction product, the statements in this KOMO product certificate can not be used to replace the CE marking on the construction product and / or replace the relevant mandatory declaration of performance.

#### LIST OF DOCUMENTS MENTIONED\*

BRL 2817 Cement-bonded spacers.	
AP04 Program of accreditation Building materials decree, version 3, SIKB, Gouda.	
Decree Soil quality Decree Soil quality, Official State journal of the monarchy of the Netherlands 2007, r	ır. 469.
Order Soil quality Order Soil quality, Papers of the state, nr. 247.	

\* For the correct version of the above-mentioned standards we refer to the last revision of BRL 2813.

