

General Building Test Certificate

Cresco[®] GR expanding waterstop

P-51-13-0063 | 07.05.2019 | english

Tested by: MPA Bau, TUM Munich

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General Building Test Certificate

No.: P-51-13-0063

Object and field of use

"Cresco® GR Quellband"
Expanding waterstop for sealing joints and
controlled crack cross-sections in structural
components made of concrete with high
resistance to water penetration which cannot
be assigned to the products C 2.10.2 and C
2.10.3 in Section C 2 according to MVV TB
Lfd. No. C 3.30

TG Bitumen and
Sealing Materials

Date
07.05.2019

Our references
AF/Fi

Applicant	Max Frank GmbH & Co. KG, Leiblfing
Date of issue	07.05.2014
Valid until	07.05.2024

This general building test
certificate comprises 6 pages

A General Provisions

- (1) This general building test certificate is proof of the usability of the construction product considered with regard to German state construction regulations.
- (2) The general building test certificate does not replace the mandatory permits, approvals and certifications governing the execution of construction projects.
- (3) The general building test certificate is issued irrespective of the rights of third parties, especially private patents.
- (4) Manufacturers and distributors of the construction product shall, irrespective of other regulations in the special provisions ("Besondere Bestimmungen"), make copies of the general building test certificate available for the user of the construction product and inform the user that the general building test certificate must be available at the location where the product is being installed. Copies of the general building test certificate are to be submitted to the concerned authorities if demanded.
- (5) The general building test certificate may only be reproduced in complete and unabridged form. The publication of excerpts thereof requires the consent of the Materialprüfungsamt für das Bauwesen (MPA BAU), Abteilung Baustoffe of the Technische Universität München. The text and diagrams of advertising material must not contradict the general building test certificate. Translations of the general building test certificate must contain the note "this translation of the original German document has not been verified by the MPA BAU, Materialprüfungsamt für das Bauwesen, Abteilung Baustoffe of the Technische Universität München".
- (6) The general building test certificate can be revoked after issue. The provisions of the general building test certificate can be amended or changed subsequently, especially if new technical expertise requires this.

B Special Provisions

1 Subject and Field of Application

1.1 Subject

The general building test certificate is valid for the production and use of the expanding waterstop designated "Cresco® GR Quellband", of the company Max Frank GmbH & Co. KG, Leiblfing, Germany for sealing construction joints and controlled crack cross-sections in structural components made of concrete with high resistance to penetrating water which cannot be assigned to the products C 2.10.2 and C 2.10.3 in Section C 2 according to MVV TB (Muster-Verwaltungsvorschrift Technische Baubestimmungen), Issue 2017/1 Lfd. No. C 3.30.

The expanding waterstop "Cresco® GR Quellband" is based on a synthetic rubber and is produced in rectangular profile 22.2 mm wide and 4.0 mm or 6.1 mm thick including the ribs ("serrated" top surface, with profile). The ribs are 1.3 mm thick, separated by 2.7 mm and distributed over the width of the expanding waterstop (6 ribs including bordering ribs).

1.2 Field of Application

In the following cases, the expanding waterstop “Cresco® GR Quellband” may be used to seal construction joints with a maximum opening of at most 0.25 mm in structural components made with concrete having a high resistance to water penetration.

- Ground moisture and water not under pressure
- Temporary accumulation of seepage water and water at pressures up to 2.0 bar (20 m water column)

The expanding waterstop “Cresco® GR Quellband” is also suitable for regions exposed to a varying water level.

The seal fulfils the requirements of the Application Class A for the Exposure Classes 1 and 2 corresponding to the WU Guideline 1.

The use of the product is linked to the observation of the guidelines for processing and the regulations for installation, Section 5.

2 Rules for the Construction Product

2.1 Properties and Composition

The as-delivered sealing system “Cresco® GR Quellband” possesses the properties described in Appendix 1.

Proof for the applicability of the product is furnished according to the testing principles for the issue of general building test certificates for joint seals in structural components in the ground which are made of concrete with high resistance to water penetration PG FBB, Part 1, seals for construction joints and controlled crack joints, October 2012.

The results are presented in test report No. 51-13-0063 dated 14.04.2014.

The product must correspond to the material tested for usability. It must possess the technical characteristics stated in the test report.

The joint seal fulfils the requirements on construction materials for construction materials fire class B2 (normal combustibility) according to DIN 4102-1, Part 1.

2.2 Manufacture, Packaging, Transport, Storage and Marking

The product “Cresco® GR Quellband” is manufactured at the factory in Leiblfing. The testing laboratory is to be informed immediately of changes in product composition or a change in the supplying plant.

Packaging, transport and storage must be performed according to the instructions of the manufacturer.

The information noted on the packaging with regard to the requirements of other areas of legislation must be observed.

¹DAfStb - Guideline, Water Impermeable Concrete Structures (WU-Guideline) - Issue November 2003

The instructions of the manufacturer with regard to the duration of storage must be observed. Components belonging together are to be clearly marked as belonging to the system.

2.3 Compliance Marking

The manufacturer must mark the construction product with the compliance mark (Ü mark) according to German state compliance regulations for compliance marks. Marking is only permissible if the requirements in Section 3, proof of compliance, are fulfilled. The Ü mark is to be placed with the following required information on the product packaging - if this is not possible, on the delivery note or package leaflet.

- Manufacturing plant
- Number of the general building test certificate

The following information must be on the packaging of the construction product or the package leaflet.

- Product name
- Charge number
- Intended purpose
- Reference to the appropriate instructions for use

3 Proof of Compliance

3.1 General

The proof of compliance of the construction product with the requirements of this general building test certificate is effected by a declaration of compliance by the manufacturer based on the control of factory production quality under the responsibility of the manufacturer and a first test of the construction product before confirmation of the compliance by a testing laboratory which is recognised by the construction authorities.

3.2 First Test of the Construction Product by a Recognised Testing Laboratory

The first test is not required for the manufacturing plant of the company Max Frank in Leiblfing because the specimens for the tests to prove the usability of the product were taken from the ongoing production of the manufacturing plant.

The first test is to be performed again if the conditions of production change.

3.3 Factory Control of Production Quality by the Manufacturer

The manufacturer shall set up the control of factory production quality according to DIN 18200:2000-05. This requires continuous monitoring of the production to ensure that the manufactured products comply with to the provisions of the general building test certificate.

The factory control of production quality under the responsibility of the manufacturer includes the tests described in Table 1.

Table 1: Type and frequency of the tests for factory production control to be performed under the responsibility of the manufacturer

Properties	Testing conditions	Requirements	Frequency
"Cresco® GR Quellband"			
Control of the starting-materials	Manufacturer's declarations or suitable tests	No indication of changes	Each delivered charge
Free expansion	In tap water	test value wt.% \pm 10 %	Each charge
Retained sample	-	-	Each charge
Roll length	-	test value with tolerance	Each charge
Density	-	test value with tolerance	Each charge
Width Height	- -	test value with tolerance test value with tolerance	Each charge

The above test criteria must be fulfilled. The results of the control of production quality at the plant are to be recorded and evaluated.

The records must contain the following information.

- Designation of the product
- Charge number of the product
- Date and test
- Test result and comparison with the requirements
- Signature of the person responsible for the factory control of production quality

The records shall be kept at least 5 years. The records shall be submitted to the testing laboratory on request.

4 Design and Dimensioning

Not applicable

5 Rules for Installation

The advice on installation made by the manufacturer in Appendix 2 is to be observed.

In the area of the joint, the concrete surface must be clean, free of grease, loose particles and standing water. It is imperative to avoid cavities under the waterstop.

The instructions for use and the general building test certificate must be available at the location where the product is being installed.

6 Legal Basis

This general building test certificate is issued according to Article 19 of the Bavarian Construction Regulations in relation to MVV TB Lfd. No. C 3.30.

7 Legal Instruction

Objection can be filed against this notice within one month of its declaration at the Court of Registration (Registergericht) in 94315 Straubing, Kolbstraße 11. The claim must be filed in written form or as a record at the registrar of the office of that court. The claim filed must name the claimant, the defendant (State of Bavaria) and the object of dispute. The claim filed must contain a definite request. The facts and evidence for justification are to be attached. The original or a copy of the contested notice is to be attached. The claim and all documents should be accompanied by copies for the other parties.

Notes on legal instruction

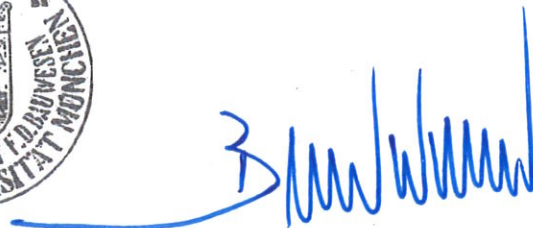
- The law amending the law on the execution of Administrative Court Proceedings (Verwaltungsgerichtsordnung) of 22nd June 2007 (GVBl S. 390) has abolished the appeal procedure in the area of the Bavarian construction regulations. It is not possible to appeal against this notice.
- It is not permissible to raise a complaint in electronic form (e.g. by email).
- According to federal law since July 1st 2004, an advancement of fees is categorically to be paid in the case of legal proceedings before the administrative courts.

This translation of the original German document has not been validated by the MPA BAU, Materialprüfungsamt für das Bauwesen, Abteilung Baustoffe der Technischen Universität München.

MATERIALPRÜFUNGSAMT FÜR DAS BAUWESEN ABTEILUNG BAUSTOFFE



Ltd. Akad. Dir. Dr.-Ing. Th. Wörner
Leiter der Arbeitsgruppe
Bitumenhaltige Baustoffe und Gesteine

Dr.-Ing. Bernd Wallner
Leiter der Fachgruppe
Bitumen und Abdichtungen

Appendix 1: Characteristics of expanding waterstop

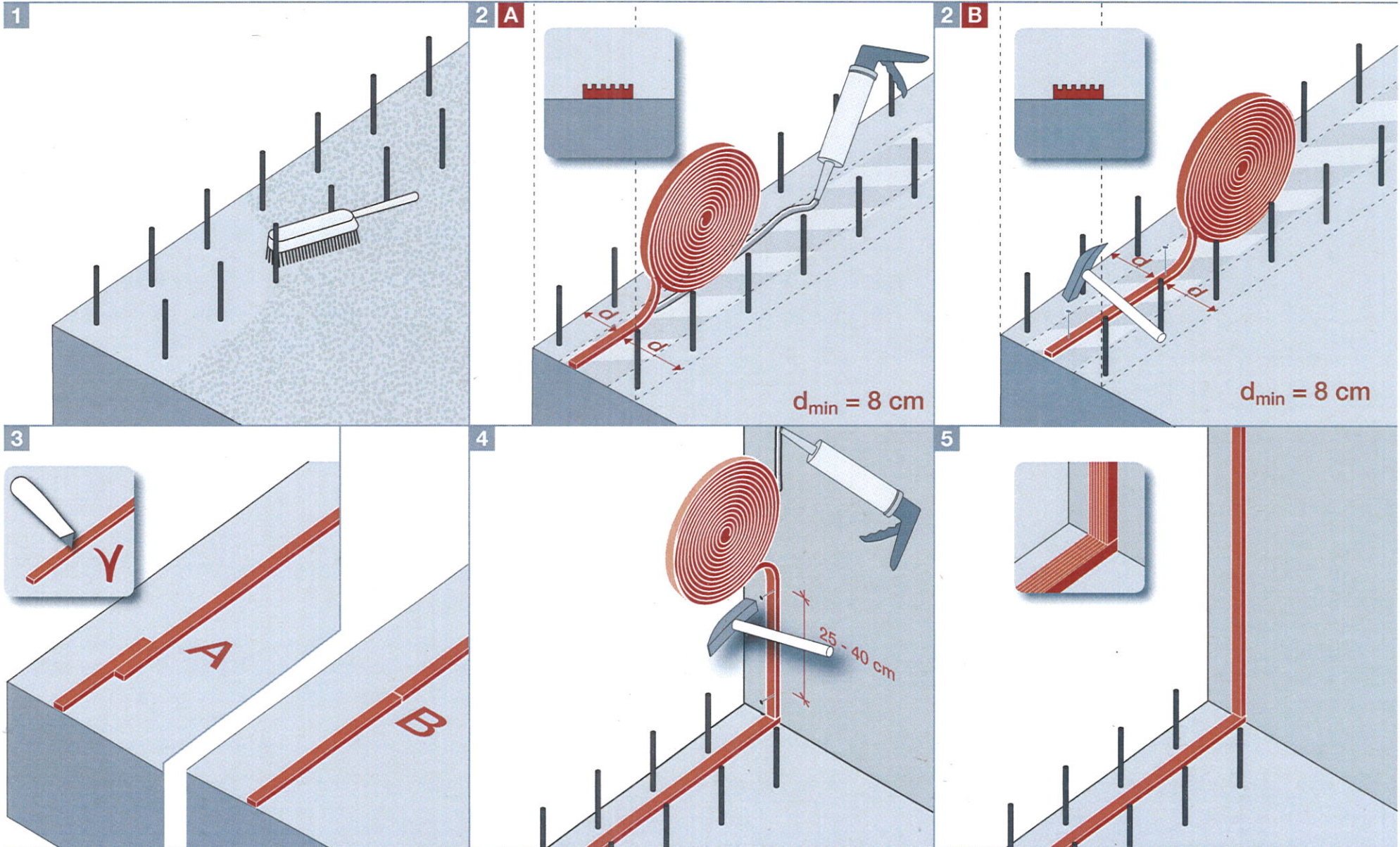
Appendix 2: Manufacturer's guide to installation

Characteristics of expanding waterstop "Cresco® GR Quellband"

Test		Result	Requirement of PG-FBB	
Geometry PG FBB, 3.3.1	Width	[mm]	Even surface, pore-free cross section, homogenous, free of cracks, inclusions, folds, defects, dimensions to be given	
	Thickness without ribs	22.2		
	Thickness with ribs	4.0		
		6.1		
Density PG FBB, 3.3.2	[g/cm³]	1.23	-	
Thermogravimetry PG FBB, 3.3.3 Steps of weight loss:	25-215°C	[%]	-	
	215-427°C			2.5
	427-580°C			29.4
	580-1000°C			29.4
	Weight loss at 1000 °C			18.4
		79.7		
Hardness PG FBB, 3.3.8	-	44 Shore A	-	

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This Installation Guideline is a condensed description of factors having a direct effect on the performance of the MAX FRANK Product and is based on the present state of the art. It may be necessary to alter these recommendations, as more information becomes available. Correct use is the responsibility of the user, if in doubt please consult your local supplier.

Diese Einbauhinweise können nur als Empfehlung gelten. Sie ersetzen nicht das für die Montage erforderliche Fachwissen. Die Hinweise werden stets auf dem neuesten Stand der Technik gehalten und werden ständig aktualisiert. Technische Änderungen sind daher – auch ohne vorherige Information des Kunden – ausdrücklich vorbehalten. Die jeweils gültige Version ist auf unserer Website unter: www.maxfrank.com zu finden. Ergänzend gelten unsere Allgemeinen Verkaufsbedingungen.



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