reid™

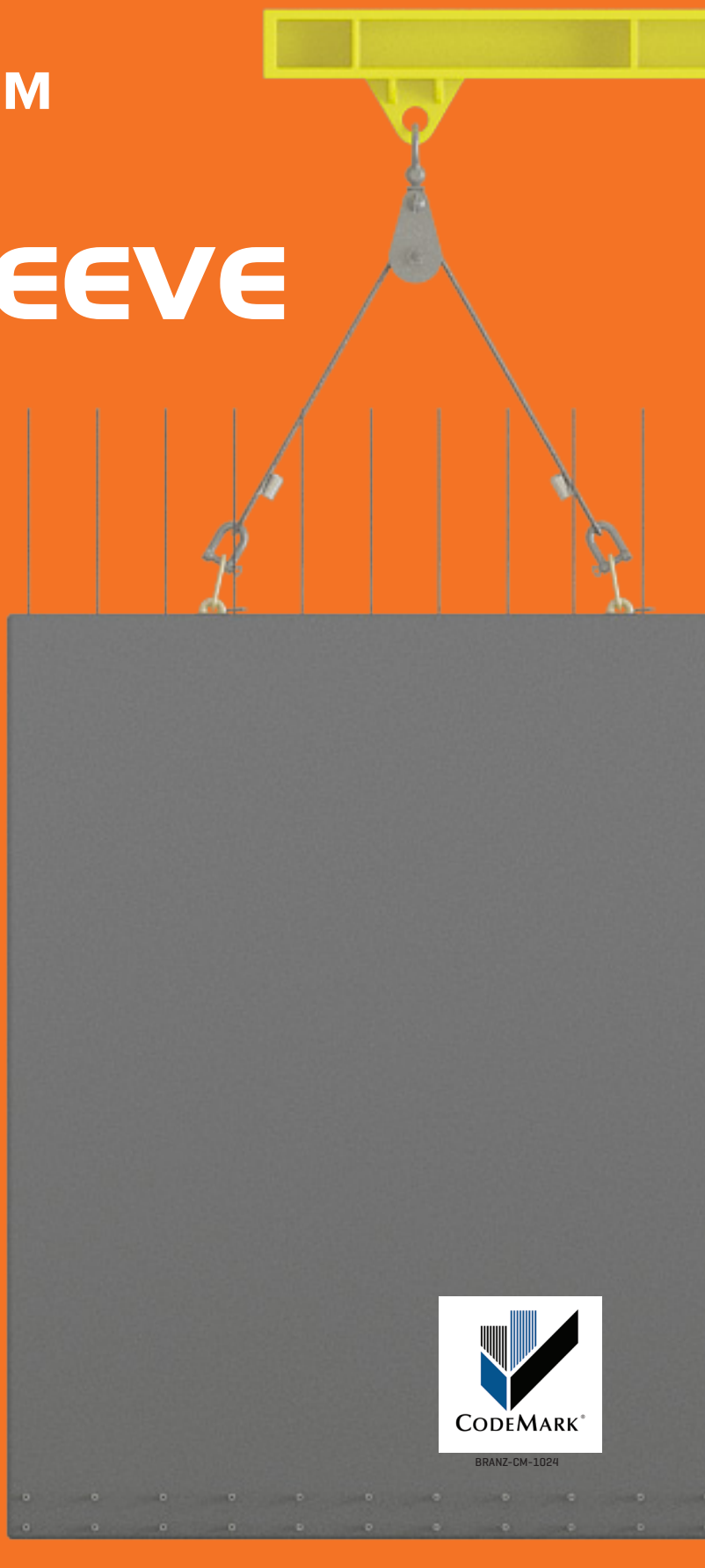
November | 2020

NZ

GENUINE

ReidBar™ Grout Sleeve System

Specification Guide



The engineered, full strength splicing solution for reinforcing bars.

CodeMark
BRANZ-CM-1024

reids.co.nz | 0800 88 22 12

ReidBar™ Grout Sleeve System

The ReidBar Grout Sleeve System provides a full strength splicing solution for reinforcing bars allowing reinforcing continuity between load-bearing precast concrete elements.

Ideal for panel to panel and panel to slab/foundation connections, the ReidBar Grout Sleeve system is designed so that when loaded to failure in tension, it exhibits ductile failure of the ReidBar, clear of the coupler. This provides designers with the confidence to base structural design on the ReidBar as the limiting design factor. The result: Ease of design.

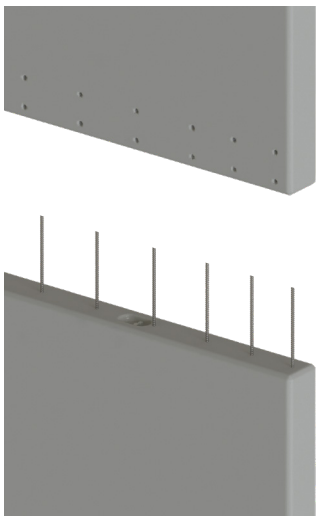
The ReidBar Grout Sleeve system comprises of specialised components, engineered to perform as a system and validated as a system, nothing Is left to chance. Performance claims are backed with physical testing of the full system performed by independent IANZ accredited labs.

The system is engineered for the task, and unlike drossbach ducts, require no modification, reducing production and installation costs, and eliminating error. The system is supported by technical assistance at every stage, face-face-training, procedures, checklists and inspection processes that take the guesswork out of construction.

Being independently certified, the ReidBar Grout Sleeve system enable designers to create efficient construction joints between precast concrete elements, with confidence

Applications

Panel to panel connections



Panel to foundation / slab connections

CODEMARK®

BRANZ-CM-1024

CodeMark's Scheme Mark of Conformity

The ReidBar Grout Sleeve system holds a CodeMark certificate (Certificate Number BRANZ-CM-1024). This provides a deemed to comply assessment for the system, to the NZBC, when used within the scope of CodeMark Certificate Number BRANZ-CM-1024.

Features & Benefits

Meets the specification.

'Deemed to comply' with clauses of the New Zealand Building Code (as stated on CodeMark Certificate Number BRANZ-CM-1024) supported by physical testing of the full system by independent IANZ accredited labs. Refer to the Compliance section for a listing of the NZBC clauses this system is compliant to and the CodeMark certificate link).

The full strength splicing solution.

ReidBar™ Grout Sleeves form a full strength structural connection backed by independent testing.

The engineered solution.

Unlike drossbach ducts, ReidBar™ Grout Sleeves are engineered for the task, removing guesswork to ensure construction quality meets the specification.

Technical support at every stage.

Reid products are backed with technical support from design to construction.

Minimises panel congestion and thickness

when compared to drossbach ducts, which must be fully confined (Source: SESOC Interim Design Guidance (Version No. 10-September 2019)

Saves on project costs

by utilising less materials and less labour time on site compared to drossbach ducts. Save on lapping and confinement requirements, assembly labour, grout volume and grouting labour.

Supports construction quality.

Full supported with contractor training, procedures, checklists and installation inspection processes ensuring quality in construction.

Quality assured products.

ReidBar™ component production is controlled through strict, independently reviewed, quality processes.

Does your solution satisfy your duty of care obligations?

Mitigate your risk.

ReidBar™ Grout Sleeve

CodeMark
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CodeMark

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What is CodeMark?

CodeMark is a product certification scheme for building methods and products.

What does CodeMark do?

CodeMark certification provides assurance that a product is **'deemed to comply' with the New Zealand Building Code.**

What are the benefits of CodeMark certification of ReidBar Grout Sleeves?

- **Provides assurance that ReidBar Grout Sleeves are 'deemed to comply'** with the clauses of the NZBC stated on CodeMark Certificate Number BRANZ-CM-1024 (refer to the Compliance section for a listing of the NZBC clauses this system is compliant to and the CodeMark certificate link).
- **ReidBar Grout Sleeves' CodeMark certification is reviewed by BRANZ annually**

Where can I find the CodeMark certificate?

The ReidBar Grout Sleeves CodeMark certificate is available on the JAS-ANZ website, located by entering the certificate number. https://www.jas-anz.org/our-directory/codemark-certified-organisations

Where can I find more information about the ReidBar Grout Sleeve System?

- Please refer to supporting literature available from www.reids.co.nz

How do I ensure compliance to the CodeMark conditions?

The ReidBar™ Grout Sleeves system is an engineered system comprising of ReidBar™ Grout Sleeves, Ramset Epcon™ C8, Ramset POZIFLO™ HS Grout and ReidBar™.

Substitution, omission and/or modification of components is not permitted by and will void the CodeMark certification of the system.

For more information refer to the CodeMark certificate located by using the link above and the Compliance, System Components and Specification Toolkit sections of this publication.

Want to know more about the ReidBar Grout Sleeve system and CodeMark certification? Contact the Reid team for advice.

customer service

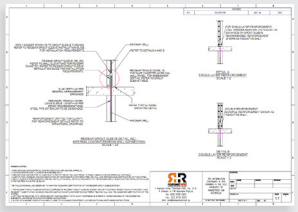
Reid™ New Zealand
Customer Service Centre
Tel: 0800 88 22 12
Email: sales@ramsetreid.co.nz
Web: www.reids.co.nz

Specification Toolkit

Reid™ makes is easy to specify with our Specification Toolkit.

Standard details in 2D CAD.

2D CAD of standard ReidBar™ Grout Sleeve system applications including ReidBar Grout Sleeve system specification details and notes that make specification easier.



Where do I find it?

Visit www.reids.co.nz Navigate to the Document tab on the Grout Sleeve page.

3D BIM Models.

3D BIM models of the ReidBar™ Grout Sleeve system components speed up design time and accuracy.

Where do I find it?

Available on request - Contact the Engineering Services team.

Technical literature.

Reid products are supported by a suite of technical literature:
CodeMark Certificate
Technical Assessments & Appraisals
Specification, Design, Installation & Product Guides

Where do I find it?

Visit www.reids.co.nz Navigate to the Document tab on the Grout Sleeve page.

Engineering services.

Need more help?

Our team of engineers can help with technical advice on non-standard applications, custom solutions and lifting design.

Who do I contact?

Reid™ New Zealand
Customer Service Centre
T: 0800 88 22 12
E: sales@ramsetreid.co.nz
W: www.reids.co.nz

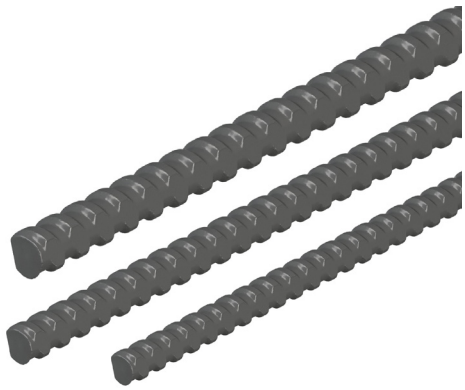
System Components

The ReidBar Grout Sleeve system comprises of specialised components, engineered to performas a system, validated as a system, independently certified as a system. Nothing is left to chance.

ReidBar™ Starters

ReidBar™ starter bar systems have been developed to provide full strength and positive connections between precast concrete panels, floor slabs and insitu suspended floors.

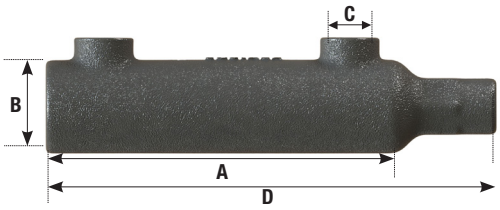
Part No.	Description	Length (mm)	Pack Qty
RB12SB	Starter bar for RB12 fittings	540	20
RBA16SB	Starter bar for RBA16 fittings	660	20
RBA20SB	Starter bar for RBA20 fittings	850	10
RB25SB	Starter bar for RB25 fittings	1150	10
RB32SB	Starter bar for RB32 fittings	1450	5



Cut to length available and subject to leadtimes

ReidBar™ Grout Sleeves

ReidBar Grout Sleeves offer a precast panel on panel splicing solution which meets the performance requirements of NZS3101:2006 Amendment 2. Whilst made of Cast SG Iron, ReidBar Grout Sleeves also had been tested to the performance requirements of NZS3101:2006 Amendment 3. Refer to the documents section for more information.



Part No.	Suits ReidBar	(A) Max Internal Embedment Depth (mm)	(B) Body ID (mm)	(C) Internal Grout Hole Diam (mm)	(D) Tube Length (mm)
RB12GS	RB12	150	28-40	21	200
RBA16GS	RB16	190	32	21	240
RB20GS	RB20	224	40	21	290
RB25GS	RB25	274	48	21	360
RB32GS	RB32	320	55	26	445

Refer to the Reid Precast Solutions Product Guide for related products. Available from www.reids.co.nz

System Components

Ramset™ Epcon™ C8 XTREM™

Part No.	Description	Pack Qty
C8-450	Epcon™ C8 Xtrem™ 450ml	12

Chemical anchoring epoxy that delivers high ultimate performance in extreme applications, including seismic.

Polyethylene Closed Cell Foam Backer Rod

Part No.	Colour	Diameter (mm)	Length (m)
PFROD06	White	6	250
PFROD10	White	10	250
PFROD13	White	13	50
PFROD15	White	15	50
PFROD20	White	20	50
PFROD25	White	25	50
PFROD30	White	30	50
PFROD40	White	40	2
PFROD50	White	50	2

Cementitious Grout

Part No.	Description	Pack Qty
RPGHS	POZIFLO™ Grout HS	20kg Bag

A dual expansion, high strength precision cementitious grout with high early strength and high flow properties.

Compliance Details

Product applicability

The products applicable to the compliance statement are defined in Table 1.

Table I: Product applicability

System	ReidBar Grout Sleeve System			
System Components	ReidBar™ Grout Sleeve	ReidBar™	EPCON™ C8 XTREM™	POZIFLO™ Grout HS
Part Numbers	 RB12GS, RBA16GS, RB20GS, RB25GS, RB32GS,	 RB12, RB16, RB20, RB25 RB32	 C8-450	 RPGHS
Conditions	Compliance and CodeMark certification applies to the system in its entirety. Substitution, omission and/or modification of components is not permitted and will void the compliance statement and CodeMark certification of the system.			

Issued: August 2020

Compliance Details

Compliance statement

The system defined in Table 1 complies with the New Zealand Building Code clauses identified in Table 2.

Table 2: Compliance details New Zealand Building Code

NZBC Clause	Criteria	Compliance Status
B1.3.1	'Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives.'	Compliant – refer to CodeMark certificate of Conformity*
B1.3.2	'Buildings, building elements and sitework shall have a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during construction or alteration when the building is in use.'	
B1.3.3 (a), (b), (d), (e), (f), (g), (h), (j), (q)	'Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including: (a) Self weight, (b) Imposed gravity loads arising from use . . . (d) Earth pressure, (e) Water and other liquids, (f) Earthquake, (g) Snow, (h) Wind . . . (j) Impact . . . (q) Time dependent effects including creep and shrinkage.	
B1.3.4	'Due allowance shall be made for: (a) The consequences of failure, (b) The intended use of the building, (c) Effects of uncertainties resulting from construction activities, or the sequence in which construction activities occur, (d) Variation in the properties of materials and the characteristics of the site, and (e) Accuracy limitations inherent in the methods used to predict the stability of buildings.'	
B2.3.1 (a)	'Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or: (a) The life of the building, being not less than 50 years, if (i) Those building elements . . . Provide structural stability to the building, or (ii) Those building elements are difficult to access or replace, or (iii) Failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building.'	
F2.3.1	'The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.'	

CODEMARK

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https://www.jas-anz.org/our-directory/codemark-certified-organisations

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Projects

ReidBar™ Grout Sleeve Project References

SugarTree Prima

Tenor Apartments

The projects and pictures illustrated herein are only possible through the following industry partners:

Consulting Engineers: BGT Structures, MSC Consulting Group, Stephen Mitchell Engineers, Structure Design.

Precast Concrete Manufacturers: Concretec New Zealand, Nauhria Precast, Stresscrete, Wilco Precast, Wilson Precast.

Building Contractors: Aspec Construction, CMP Construction, Haydn & Rollett, Kalmar Construction, Scarbro Construction.

Queens Residences

UoA Building 906

Selwyn Heights Village

Specification Checklist

General requirements

☐ **Comply with the system requirements:**

The ReidBar™ Grout Sleeves system is an engineered system comprising of ReidBar™ Grout Sleeves, Ramset Epcon™ C8, Ramset POZIFLO™ Grout HS and ReidBar™.

Substitution, omission and/or modification of components is not permitted by ramsetreid and will void the CodeMark certification of the system.

Substitution, omission and/or modification of components will affect the performance of the system and thus the structural performance of the building.

Deviation from the technical literature, (eg. including but not limited to prescribed installation methods, operating conditions, measures, shelf life, storage and safety precautions) will affect the performance of the system, the structural performance of the building and/or the safety of workers.

Products shall only be used as in applications described in ramsetreid publications at or below the published capacities.

During design development:

- ☐ Refine the grouting methodology (refer to the typical Grouting details in the 2D Standard Detail Drawings).
- ☐ Nominate shim placement (where required).
- ☐ If used, specify foam tape placement, dry packing placement and minimum grout coverage within the panel joint.

During documentation development:

- ☐ Finalise the specification in accordance with the 2D Standard Detail Drawings.
- ☐ Finalise the grouting methodology.
- ☐ Nominate the submission of panel manufacture and installation checklists.
- ☐ Nominate the validation of panel design and grouting methodology with a test panel (optional).

During shop drawing development

- ☐ Work with the contractor to approve the panel design.
- ☐ Work with the contractor to approve the installation method.
- ☐ Assess the test panel to validate the design and grouting methodology (optional).
- ☐ Assess all deviations from the specification.

Before construction:

- ☐ Work with the precast contractor to approve the final installation method including, if used, shim, foam tape and/or dry packing placement and minimum grout coverage requirements.
- ☐ Assess all deviations from the specification.

During construction:

- ☐ Assess all deviations from the specification.

Your Reid representative can assist at any stage.

customer service

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