

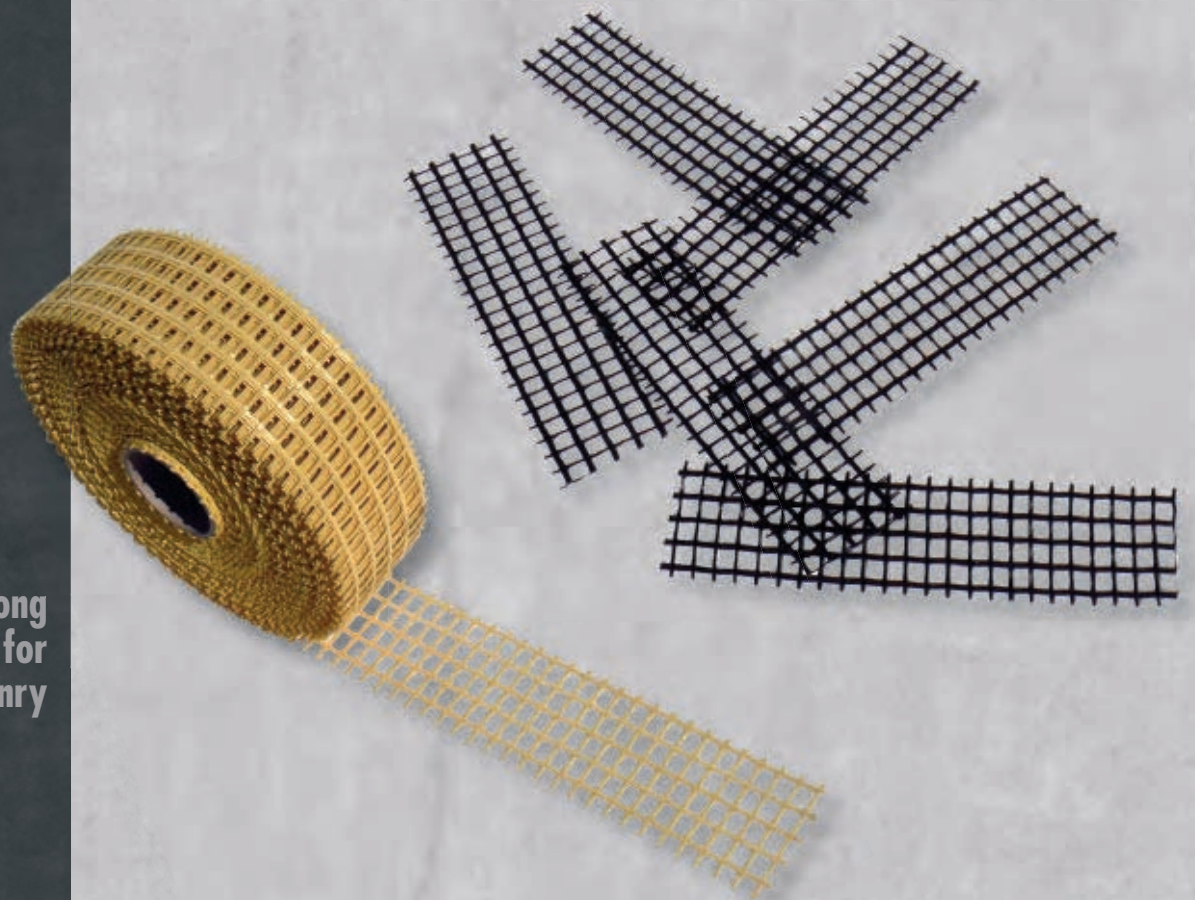


*for better solutions...*



# Griprip®

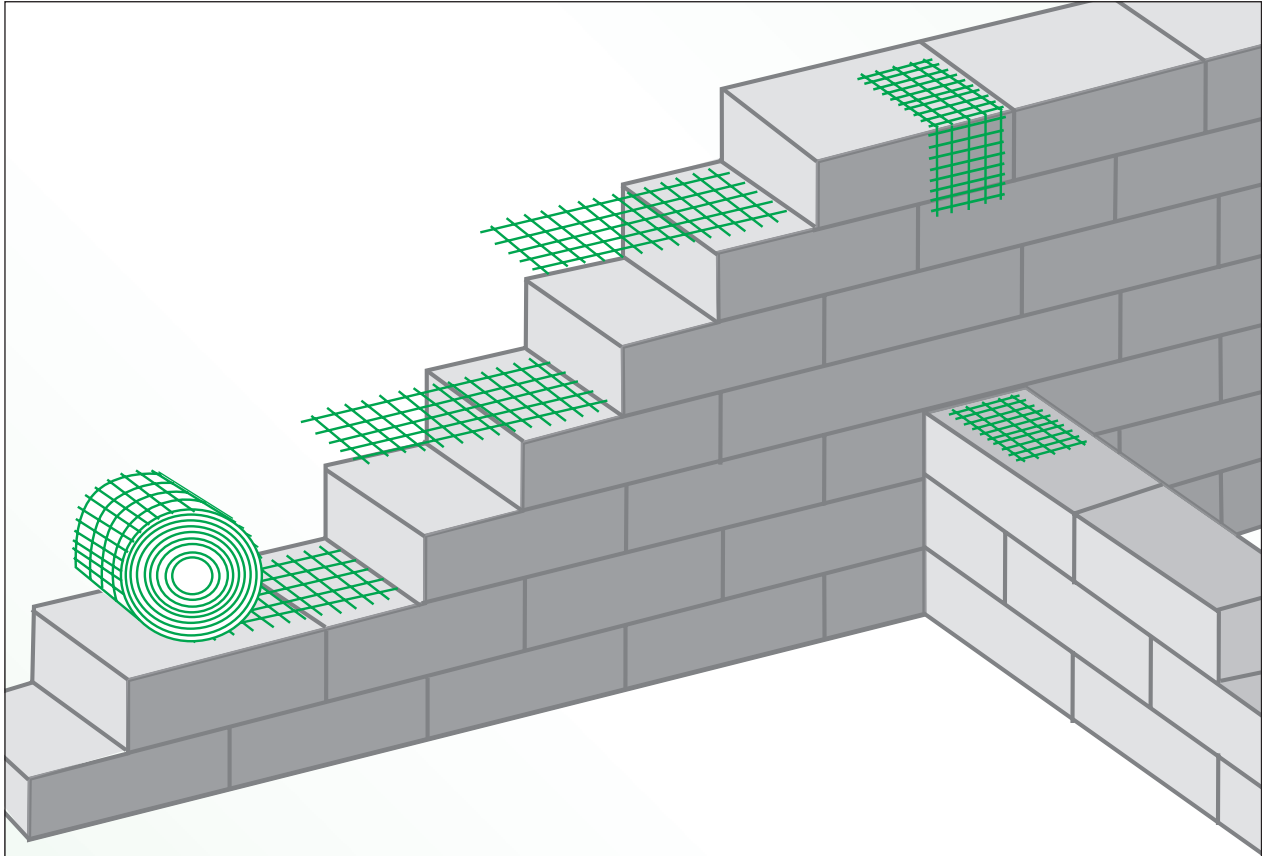
Masonry fixings



The strong  
connector for  
masonry

*Reinforcement for a safe connection*

### GRIPRIP® - The strong connection for masonry



#### The product

GRIPRIP® is a masonry connector made made from aramide fibre woven mesh. The mesh structure provides optimum force transmission.

The improved lateral strain in the joint area increases the compressive stress. This is particularly important for lightweight mortar.

In comparison with traditional strap iron masonry connections there is no weakening of the material resulting from bending the connector back and forth.

#### Features

- Reduced effort resulting in shorter processing time
- No corrosion problems for the horizontal joint in the masonry
- No transmission of noise
- Generally easy to use with all types of mortar
- Reduced lateral strain in the joint area; particularly important for lightweight mortar
- No protruding or bent strap iron masonry connector during the construction
- No risk of injury in the installation area
- Simple cutting to size with scissors – no special tools required

#### Application area

GRIPRIP® Type A is a nominal reinforcement that is used in masonry construction. By installing GRIPRIP® Type A in the horizontal joint the risk of cracking in the walls is considerably reduced.

GRIPRIP® Type A is also used as a structural reinforcement for masonry in earthquake regions.

GRIPRIP® Type S is a masonry connector for butt-joint anchoring in masonry construction.

## Technical information

- GRIPRIP® Type A is a lightweight mesh (200 g/m<sup>2</sup>) made of aramide fibres with a mesh size of approx. 14 x 10 mm.
  - GRIPRIP® Type S is a lightweight aramide/polyester woven mesh (230 g/m) with a mesh size of approx. 13 x 11 mm.
  - GRIPRIP® Type A is available in 7 different widths:
    - 85 mm      ■ 150 mm
    - 170 mm   ■ 200 mm
    - 240 mm   ■ 300 mm
    - 340 mm
 The supplied roll length is 100 m.
  - No impairment of the heat insulating properties of the masonry.
  - The mesh structure provides optimum force transmission.
- GRIPRIP® Type S is supplied in with standard dimensions of 85 x 300 mm.

## Technical properties

GRIPRIP® is a woven mesh of aramide fibres.

Aramide is an aromatic polyamide fibre with the following properties:

- E-modul:      about 45 kN/mm<sup>2</sup>
- Max. tensile force:      2.500 N/Strang
- Ultimate strain:      approx. 4 %
- The fibres are characterised by excellent fatigue resistance against acids and leaching as well as better fatigue behaviour than for steel
- Linear tension-strain behavior

## GRIPRIP® Type S

The suitability of GRIPRIP® Type S for butt-joint anchoring has been demonstrated by material testing institutes using tensile strength tests.

Tensile strength test value > 5 kN

Safety factor  $\gamma = 3.0$   
→ 1.67 kN

Selected safety value per strip of GRIPRIP® Type S:  
**Ultimate load = 1.5 kN**

## Dimensions and ultimate loads

Type	width [mm]	length [m]	for wall thickness* [mm]	strings [unit/width]	Ultimate load** [kN]
A 1	85	100	115	5	12.5
A 1.1	150	100	175	9	22.5
A 2	170	100	200	10	25.0
A 2.1	200	100	240	11	27.5
A 3	240	100	300	14	35.0
A 3.1	300	100	365	17	42.5
A 4	340	100	365	20	50.0
S	85	0.30	all wall thicknesses	5	12.5

\* the distance to the outside edge of the wall should be approx. 15 – 20 mm in each case

\*\* Ultimate load according to the technical properties of aramide fibre mesh

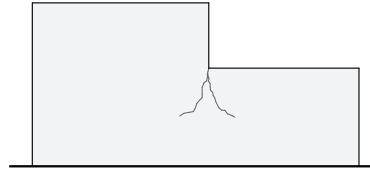
### Application and configuration examples for GRIPRIP® Type A

In various cases masonry structures under certain circumstances are exposed to the risk of cracking. These cracks can seriously impair not only the functionality but also the appearance.

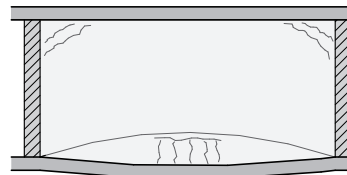
With the structural reinforcement GRIPRIP® Type A, crack prevention can be improved at favourable cost.

Since this damage to structural components is not in general a risk to the structural integrity, the use of GRIPRIP® Type A does not require building inspection approval or a DIN regulation.

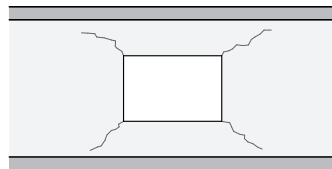
#### Constructional design/crack formation



Notch and shrinkage stresses resulting from alterations to the component dimensions



Cracks in partitioning walls resulting from deflection of an intermediate ceiling

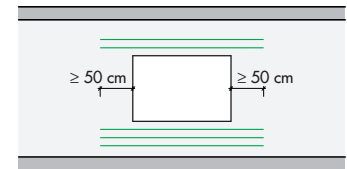
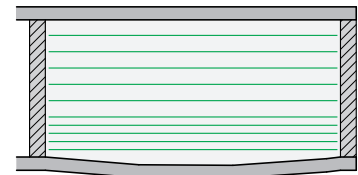
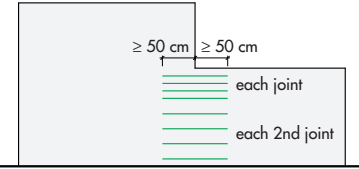


Notch and shrinkage stresses in the corners of apertures



Cracks resulting from shrinkage and temperature fluctuations

#### Configuration of GRIPRIP® Type A



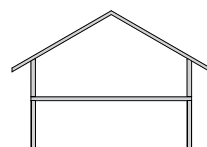
### Design and sizing of GRIPRIP® Type S

The following standard design can be used for butt-joint anchoring in masonry:

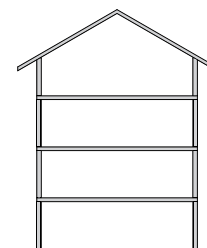
Prerequisites:

- Height of the storey  $h \leq 2.75\text{m}$
- Wall thickness  $d \leq 24\text{ cm}$
- Spacing between transverse walls  $b \leq 7.20\text{ m}$
- Wall loading in buildings
 

up to 2 floors	$N \leq 70\text{ kN/m}$
3 to 4 floors	$N \leq 150\text{ kN/m}$



Up to two storeys:  
 1 x GRIPRIP® Type S  
 ■ In each 3rd horizontal joint  
 ■ spacing  $\leq 75\text{ cm}$



3 to 4 storeys:  
 1 x GRIPRIP® Type S  
 ■ In each horizontal joint  
 ■ spacing  $\leq 25\text{ cm}$

Scope:  
012 Masonry

Application area: DIN 276  
■ Exterior and interior walls

## GRIPRIP® nominal reinforcement and butt-joint anchorage in masonry

01 **H-Bau Technik GmbH** Masonry Reinforcement GRIPRIP®

02 *nominal reinforcement required for the installation*

- 03 ..... m GRIPRIP® Type A1            B = 85 mm
- 04 ..... m GRIPRIP® Type A1.1        B = 150 mm
- 05 ..... m GRIPRIP® Type A2            B = 170 mm
- 06 ..... m GRIPRIP® Type A2.1        B = 200 mm
- 07 ..... m GRIPRIP® Type A3            B = 240 mm
- 08 ..... m GRIPRIP® Type A3.1        B = 300 mm
- 09 ..... m GRIPRIP® Type A4            B = 340 mm

10 for insertion in  
     each layer of masonry  
     each ..... layer of masonry  
     up to the ..... layer of masonry

11 *for butt-joint anchorage installation*

- 12 ..... m GRIPRIP® Type S            B = 85 mm    L = 300 mm

13 for insertion in  
     each layer of masonry  
     each ..... layer of masonry  
     up to the ..... layer of masonry

14 in addition to item .....  
     of the masonry  
     of the facing  
     of .....

15 Delivery and installation

16 installation is carried out using the data supplied by

**H-BAU Technik GmbH**  
**Am Güterbahnhof 20**  
**GERMANY - 79771 Klettgau-Erzingen**  
**Tel.: 0049 (0) 77 42 / 92 15-20**  
**Fax: 0049 (0) 77 42 / 92 15-90**  
**www.h-bau.com**

17 material .....

18 wages .....

19 unit price .....

20 **total price** .....

GRIPRIP®