Fields of application

Horizontal laying
- Crack reconstruction / reinforcement of cracked masonry parts
- Stabilisation of building corners/building sections
- (subsequent) masonry reinforcement e. g. in lintel areas
- Replacement/complement of ring anchors/circular beams

Needling
- Reinforcement and stabilisation of natural stone walls and thick brick walls
- Crack needling in thick masonry construction
- Stabilisation and load carrying capability increase of arched constructions
- Securing of decorative elements

Anchoring*
- Anchoring of facing layers for two-layer masonry
- Anchoring of facing masonry and full-surface wall cladding
- Connection of cracked or broken masonry parts
- Rear anchoring of masonry in wooden constructions

Further information

Standards / guidelines (selection)
- DIBt Building Rules List C Chapter 1 No. 1.4
- DIN EN 845, part 1-3 "Supplementary Components for Masonry"
- WTA pamphlet 4-3-98/D “Repair of Masonry – Static Stability and Load Carrying Capacity"

Literature (selection)
- Meichsner, Heinz: „Spiralanker für die Mauerwerksinstandsetzung“ (Spiral Anchors for Masonry Repair), IRB Verlag, 2009
- Pfefferkorn, Werner; Klaas, Helmut: „Risschäden an Mauerwerk“ (Crack Damage in Masonry), IRB Verlag, 3rd revised edition 2002

Test certificates (selection)
- PB 1.1/07-095 of the MFPA Leipzig dated 16 July 2007
- PB No. 220.01.05 of the TU Darmstadt dated 17 Oct 2005
- PB M 01 0363 of the MPA Darmstadt dated 4 Apr 2001

System documents (please request)
- Technical descriptions of areas of Application
- Articles on sample projects
- Processing instructions
- Technical leaflets of system components

Customer service
- Tel.: 0049-(0)-37204 / 635-0 info@ruberstein.de

*Spiral Anchor System
For Masonry Reconstruction
Recognition and effective repair of damage
System components

**RUBERSTEIN® Spiral Anchors**

**Material**
Spiral bar made of austenitic stainless steel (material 1.4301 or 1.4401 for increased requirements) manufactured in a combined rolling and turning process

**Advantages**
Fast and easy installation
Very high tensile stress along with relatively high elasticity - acts like a strongly pre-stressed spring
Very good bonding properties
Uniform force transmission without load concentrations

**Delivery forms**
Diameters 6 mm, 8 mm, 10 mm (others on request)
Without tip, one or two tips
Lengths from 10 cm to 1 m; 10 m roll

**Characteristic data**

<table>
<thead>
<tr>
<th>ø 6 mm</th>
<th>ø 8 mm</th>
<th>ø 10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass</td>
<td>67 g/m</td>
<td>79 g/m</td>
</tr>
<tr>
<td>Cross-section</td>
<td>8 mm²</td>
<td>10 mm²</td>
</tr>
<tr>
<td>Max. tensile strength</td>
<td>7,2 kN</td>
<td>8,8 kN</td>
</tr>
<tr>
<td>Yield point</td>
<td>6,0 kN</td>
<td>7,5 kN</td>
</tr>
<tr>
<td>Elasticity module</td>
<td>156.269 N/mm²</td>
<td>148.813 N/mm²</td>
</tr>
</tbody>
</table>

See also test report M 01 0363 of the MPA Darmstadt (4 Apr 2001)

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**RUBERSTEIN® Anchor grout**

**Characteristics**
Mineral grouting on cement basis
Two components
Easily pumpable
Low-shrinkage
Thixotropic
Frost-resistant
With high initial strength

**Variants**
Standard
High-strength (F)
High sulphate resistant (R)

**Delivery form**
Bucket with two units of dry and liquid component each, for a total quantity of 6 L fresh grouting (= 12 kg)

**Characteristic data**

<table>
<thead>
<tr>
<th>ø 6 mm</th>
<th>ø 8 mm</th>
<th>ø 10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compress. strength</td>
<td>27,8 N/mm²</td>
<td>35,0 N/mm² (high-strength)</td>
</tr>
<tr>
<td>Bending tensile strength</td>
<td>5,44 N/mm²</td>
<td></td>
</tr>
<tr>
<td>Elasticity module</td>
<td>12.878 N/mm²</td>
<td></td>
</tr>
<tr>
<td>Bond shear strength</td>
<td>0,86 N/mm² (on reference stone according to DIN 18555-5)</td>
<td></td>
</tr>
</tbody>
</table>

See also test report PB 1.1/07-095 of the MFPA Leipzig (16 July 2007)

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**Material and accessories**

- Wall chaser
- Hammer drill / stone drill
- Mortar gun
- Filling tubes
- Perforated sleeve
- **RUBERSTEIN®** Crack putty
- Setting tools
  - Hammer tools
  - Driving tools
- Extraction measuring device

**Reference (selection)**
Young People’s Church Chemnitz
Portico of Bavarian Station Leipzig
Johanneum Dresden
Friedenstein Castle Gotha
Regional Archive of Magdeburg
Bendlerblock Berlin
University Auditorium Göttingen
Tomb Hall of Main Cemetery Frankfurt/Main
Town Hall of Augsburg-Haunstetten
Altena Castle
U-Tower Dortmund
Protestant City Church Moers
Water Tower Straelen
Arsenal Vienna
Treasury Department of Vienna