

# DIN EN 959:2019-04 (E)

## Mountaineering equipment - Rock anchors - Safety requirements and test methods

| <b>Contents</b>  |  | <b>Page</b> |
|--|--|-------------|
| European foreword .....  |  | 3           |
| Introduction .....   |  | 4           |
| 1  | Scope .....                                    | 5           |
| 2  | Normative references .....                     | 5           |
| 3  | Terms and definitions .....                    | 5           |
| 4  | Safety requirements .....                      | 6           |
| 4.1  | Material(s) .....                              | 6           |
| 4.2  | Design .....                                   | 7           |
| 4.3  | Load-bearing capacity .....                    | 9           |
| 4.3.1  | Axial load-bearing capacity .....              | 9           |
| 4.3.2  | Radial load-bearing capacity .....             | 10          |
| 4.3.3  | Belay rock anchor linking elements .....       | 10          |
| 5  | Test methods .....                             | 10          |
| 5.1  | Check of materials .....                       | 10          |
| 5.2  | Concrete block .....                           | 10          |
| 5.3  | Procedure .....                                | 10          |
| 5.3.1  | Examination of design .....                    | 10          |
| 5.3.2  | Determination of load-bearing capacity .....   | 10          |
| 6  | Marking .....                                  | 12          |
| 7  | Information supplied by the manufacturer ..... | 12          |
| Annex A (informative) Standards on mountaineering equipment .....  |  | 14          |
| Annex B (informative) Choice of materials for different environmental conditions and the consequences for inspection and maintenance ..... |  | 15          |
| Annex C (informative) Stress corrosion cracking of steel anchors .....   |  | 16          |
| Annex D (informative) General guidance for placing rock anchors .....  |  | 17          |
| Bibliography .....   |  | 18          |