

# DIN EN 12491:2016-02 (E)

## Paragliding equipment - Emergency parachutes - 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 .....                              | 8           |
| 4.1  | Deployment system .....                                | 8           |
| 4.2  | Speed of opening .....                                 | 8           |
| 4.3  | Descent rate and stability .....                       | 8           |
| 4.3.1  | Unsteerable parachute .....                            | 8           |
| 4.3.2  | Steerable parachute .....                              | 8           |
| 4.4  | Strength .....   | 9           |
| 4.5  | Additional requirements for steerable parachutes ..... | 9           |
| 5  | Test methods .....                                     | 9           |
| 5.1  | Test apparatus .....                                   | 9           |
| 5.2  | Test conditions .....                                  | 9           |
| 5.3  | Procedure .....  | 9           |
| 5.3.1  | General .....  | 9           |
| 5.3.2  | Deployment system strength test .....                  | 10          |
| 5.3.3  | Speed of opening test .....                            | 10          |
| 5.3.4  | Descent rate and stability test .....                  | 10          |
| 5.3.5  | Strength test .....                                    | 10          |
| 5.3.6  | Additional tests for steerable parachutes .....        | 11          |
| 6  | Test files .....                                       | 11          |
| 6.1  | Test file information .....                            | 11          |
| 6.2  | Items accompanying the test files .....                | 12          |
| 7  | Manufacturing record .....                             | 12          |
| 8  | User's manual .....                                    | 12          |
| 9  | Marking .....  | 14          |
| Annex A (informative) Example of marking label .....   |  | 15          |
| Annex B (normative) Formula to be used for correcting the test mass for differences from ICAO<br>standard atmosphere ..... |  | 16          |
| Annex C (informative) Example drop test device .....   |  | 17          |