

DIN EN ISO 2307:2019-12 (E)

Fibre ropes - Détermination of certain physical and mechanical properties (ISO 2307:2019)

Contents

	Page
European foreword	4
Foreword	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Principle	6
4.1 Calculation of the linear density	6
4.2 Measurement of the diameter, lay length and braid pitch	7
4.3 Measurement of the elongation of the rope	7
4.4 Measurement of the breaking force	7
5 Apparatus	7
6 Sampling	8
6.1 Composition of the batch to be sampled	8
6.2 Sample size	8
6.3 Selection of samples	8
7 Test pieces for tensile testing and force-elongation measurements	8
7.1 Length	8
7.2 Number of test pieces	8
7.3 Taking the test pieces	8
8 Conditioning	9
9 Procedure	9
9.1 General	9
9.2 Initial measurements	9
9.3 Mounting the test piece on the testing machine	9
9.4 Measurement of diameter, lay length or braid pitch and gauge length	11
9.5 Bedding-in of the test piece	12
9.6 Measurement of the elongation of the rope	13
9.7 Measurement of the breaking force	13
10 Linear density	13
11 Expression of results	14
11.1 General	14
11.2 Linear density, ρ_1	14
11.3 Diameter, lay length or braid pitch	14
11.4 Elongation	14
11.5 Actual breaking force	15
12 Determination of water repellency	15
12.1 General	15
12.2 Principle	15
12.3 Test pieces	15
12.3.1 General	15
12.3.2 Whipping	15
12.3.3 Cutting the samples	15
12.3.4 Sealing	15

12.4	Procedure	16
12.4.1	First weighing.....	16
12.4.2	Second weighing	16
12.4.3	Third weighing	16
12.4.4	Drying the specimens	16
12.4.5	Fourth, fifth and sixth weighing.....	16
12.5	Results of tests.....	16
13	Determination of lubrication and finish content.....	16
13.1	General.....	16
13.2	Reagents.....	16
13.3	Preparation of samples.....	17
13.4	Determination of water content.....	17
13.5	Determination of lubrication and finish content.....	17
13.6	Calculation of lubrication and finish content.....	17
14	Test report.....	17
Annex A (normative) Reference tension.....		18
Annex B (informative) Alternative procedures for ropes with high breaking forces.....		19
Annex C (normative) Determination of the force-elongation coordinates on a separate test piece.....		25
Annex D (informative) Test report — Fibre ropes.....		26
Bibliography.....		27