

TEST REPORT – Verification of minimum breaking force of steel wire ropes

Product: Steel Wire Ropes - POWERK Brand
Type/model designation: See clause 2.
Testing date: 2024-04-24
Test location and address: Korea Testing & Research Institute
15, Jongga-ro, Jung-gu, Ulsan, 44412, Republic of Korea

For and on behalf of
TÜV NORD Korea



2024-04-24

Kim, In Hwan
Machinery Team, Team Leader
Production Certification Business Unit

Date

Name

1. Introduction

This report evaluates the breaking force of the steel wire ropes provided by the applicant, as requested. These ropes are standardized products designed for use in lift equipment, serving suspension, compensation, and governor duties in traction drive and hydraulic lifts moving between guides and similar applications.

Information for use shall comply with EN 12385-1:2002+A1:2008, Clause 7, and EN 12385-3:2020.

However, this report does not establish or evaluate the requirements for information for use, nor does it cover requirements for ropes fitted with terminations.

For reference, the Tables 6 to 10 in EN 12385-5:2021 provide minimum breaking force values for the most common classes, sizes, and grades of rope.

2. General product information

No.	Product name	Designation and classification	Nominal rope diameter
1	Steel wire rope - POWERK Brand	8×19S - IWRC	6.5 mm
2	Steel wire rope - POWERK Brand	8×19S - IWRC	8 mm
3	Steel wire rope - POWERK Brand	8×19S - IWRC	10 mm
4	Steel wire rope - POWERK Brand	8×19S - FC	8 mm
5	Steel wire rope - POWERK Brand	8×19S - FC	10 mm
6	Steel wire rope - POWERK Brand	8×19S - FC	11 mm

3. Reference standards

The standard(s) that apply to this test is as follows:

- 3.1. EN 12385-5:2021 Steel wire ropes - Safety - Part 5: Stranded ropes for lifts, Clause 5.5

4. Test conditions and test equipment used

- 4.1. Test environment: Tested at room temperature 20 °C ±5 °C

- 4.2. Test equipment:

No.	Equipment name	Manufacturer / Type	Identification number	Calibration date
1	Tensile Testing Machines	ZwickRoell / Z600 (600 kN)	725772-1	2023-12-06

5. Test results

No.	Designation and classification	Nominal rope diameter	Minimum breaking force (kN)	Measured breaking force F_m (kN)
1	8×19S - IWRC	6.5 mm	26.6	31.5
2	8×19S - IWRC	8 mm	40.3	43.2
3	8×19S - IWRC	10 mm	63.0	65.6
4	8×19S - FC	8 mm	29.4	32.6
5	8×19S - FC	10 mm	46.0	53.8
6	8×19S - FC	11 mm	55.7	64.9

Note) The test results in this report are valid only for the samples tested. Any publication of excerpts from or copying of the certificates or test reports requires prior written agreement from the Contractor.

=== The End of Test Report ===