DIN SPEC 91519:2026-03 (E)

Creation of a product carbon footprint (PCF) for power tools for forestry, landscape conservation, construction, industry and the trades; Text in English

Inhalt

Seite

Foreword 5

Introduction 7

1 Scope 8

2 Normative references 8

3 Terms and definitions 8

4 Symbols and abbreviations 11

5 Product carbon footprint (PCF) 12
5.1 General 12
5.1.1 General definitions 12
5.1.2 Life cycle inventory 12
5.1.3 Well-to-tank-emissions 12
5.1.4 Allocation rules 13
5.1.5 Allocation between co-products 13
5.1.6 Allocation for reuse and recycling operations 13
5.1.7 Exclusion from system boundary 14
5.1.8 Cut-off criteria 14
5.1.9 Data quality 15
5.1.10 Units 15
5.1.11 Life cycle impact assessment 15
5.2 Definition of the scenario 16
5.2.1 General 16
5.2.2 Functional units 19
5.2.3 Determination of energy consumption 22
5.2.4 Total service life (TSL) 22
5.2.5 Tank-to-Tool 26
5.2.6 Maintenance 26
5.2.7 Repair 26
5.2.8 End-of-life treatment 28
5.2.9 Recycling 29
5.3 Reporting 30
5.3.1 General 30
5.3.2 Background report (for verifier only) 30
5.3.3 PCF report 31
5.3.4 PCF information B2C 31
5.3.5 Digital provision 32
5.4 Critical review 32
5.5 Workflow diagram and calculation example 32
5.6 Creating new product specific rules (PSRs) 32

Annex A (normative) Priority parts and tables for calculating the ESL 33
A.1 Priority parts (PP) 33
A.2 Average service life extension (ASLE) 35
A.3 Ease of repair (ER) 35
A.4 Part affordability (PA) 37
A.5 Repair affordability (RA) 38

Annex B (normative) Recycling and landfill rates **40**
Annex C (informative) Example for maximum power determination **41**
Annex D (informative) Workflow diagram and calculation example **43**
Bibliography **46**

Figures

Figure 1 — Categorization of emissions in the different life cycle stages **12**
Figure 2 — Cradle-to-grave scenario for the PCR of power tools in two different representations: Life cycle flow chart (top) and life cycle stage assignment to categories (bottom) **17**
Figure 3 — Determination of the RSL for power tools **23**
Figure 4 — Calculation rule for calculating the TSL when an ESL bonus is granted (PF = 1) **24**
Figure 5 — Definition of the end-of-life phase for the PCR of power tools **28**
Figure 6 — System Boundary of the product system (emissions related to the material lifecycle) **30**
Figure A.1 — Visual representation of disassembly sequence and number of steps [6] **36**
Figure A.2 — Example for disassembly depth [6] **37**
Figure C.1 — Peak and continuous power determination of power tools **42**

Tables

Table 1 — Functional unit for various power tools or functions of power tools **20**
Table 2 — Testing materials **20**
Table 3 — Additional requirements for the testing and for the consumables **22**
Table 4 — Determining whether a product can be repaired or not (PF) **25**
Table A.1 — Product with internal combustion engine (ICE) **33**
Table A.2 — Electrical product **33**
Table A.3 — Examples for typical power transmission parts **34**
Table A.4 — Average service life extension (ASLE) **35**
Table A.5 — Ease of repair (ER) **35**
Table A.6 — Ease of repair (ER), alternative **37**
Table A.7 — Part affordability (PA) **37**
Table A.8 — Repair affordability (RA) **38**

Table B.1 — Recycling and landfill rates **40**

Table D.1 — Workflow diagram and calculation example **43**