

# DIN DKE SPEC 99100:2025-02 (E)

## Requirements for data attributes of the battery passport; Text in English

---

Inhalt	Seite
Foreword .....	5
Introduction.....	8
1 Scope.....	9
2 Normative references .....	9
3 Terms and definitions.....	10
4 Abbreviations .....	18
5 Introduction to the battery passport .....	19
5.1 Legislation .....	19
5.2 Battery passport access.....	21
5.2.1 Access to battery passport information.....	21
5.2.2 Access groups .....	22
5.3 Labelling.....	22
5.4 Data attributes overview .....	24
6 Battery passport content requirements .....	27
6.1 Identifiers and product data.....	27
6.1.1 Overview .....	27
6.1.2 Identifier .....	30
6.1.3 Product data.....	32
6.2 Symbols, labels and documentation of conformity .....	34
6.2.1 Overview .....	34
6.2.2 Separate collection symbol .....	36
6.2.3 Symbols for cadmium and lead.....	36
6.2.4 Carbon footprint label .....	36
6.2.5 Extinguishing agent .....	37
6.2.6 Meaning of labels and symbols .....	37
6.2.7 EU declaration of conformity.....	37
6.2.8 Results of test reports proving compliance .....	38
6.3 Battery carbon footprint.....	38
6.3.1 Overview .....	38
6.3.2 Battery carbon footprint per Functional Unit.....	40
6.3.3 Contribution of raw material acquisition and pre-processing lifecycle stage.....	41
6.3.4 Contribution of main product production/manufacturing lifecycle stage.....	41
6.3.5 Contribution of distribution lifecycle stage .....	41
6.3.6 Contribution of end of life and recycling lifecycle stage .....	42
6.3.7 Carbon footprint performance class .....	42
6.3.8 Web link to public carbon footprint study.....	43
6.3.9 General battery and manufacturer information .....	43
6.3.10 Absolute battery carbon footprint.....	43
6.4 Supply chain due diligence.....	43
6.4.1 Overview .....	43
6.4.2 Information of due diligence report in the Battery Passport.....	45
6.4.3 Third-party assurances of recognised schemes .....	46
6.4.4 Supply chain indices.....	46
6.5 Battery materials and composition .....	46
6.5.1 Overview .....	46

6.5.2	Battery chemistry.....	48
6.5.3	Critical raw materials .....	48
6.5.4	Materials used in cathode, anode and electrolyte.....	48
6.5.5	Hazardous substances .....	49
6.5.6	Impact of substances on environment, human health, safety, persons.....	50
6.6	Circularity and resource efficiency .....	50
6.6.1	Circularity information .....	50
6.6.2	Recycled and renewable content .....	53
6.6.3	Information on role of end-users in waste prevention and information on battery collection, preparation for second life and on treatment at end of life .....	56
6.7	Performance and durability .....	57
6.7.1	General .....	57
6.7.2	Capacity, energy, and voltage .....	60
6.7.3	Power capability.....	66
6.7.4	Round trip energy efficiency and self-discharge.....	70
6.7.5	Internal resistance.....	75
6.7.6	Battery lifetime .....	78
6.7.7	Temperature conditions .....	83
6.7.8	Negative Events.....	87
	Annex A (informative) Data attribute longlist.....	90
	Annex B (informative) Due diligence report.....	94
B.1	Obligations for economic operators on due diligence policies .....	94
B.2	Guidelines to align activities and reporting .....	95
	Annex C (informative) Recycled content targets.....	96
	Annex D (informative) References to Regulations.....	97
	Bibliography.....	108

## Figures

Figure 1	— Battery passport information flow in the Battery Regulation .....	20
Figure 2	— Delegated & Implementing Acts scheduled by the Battery Regulation.....	21
Figure 3	— Battery passport information by battery categories and access groups .....	26
Figure 4	— Separate collection symbol (see BattReg Annex VI Part B) .....	36
Figure 5	— Cross references including the source information of performance and durability requirements .....	59

## Tables

Table 1	— Information displayed on the battery label.....	23
Table 2	— Battery passport data attributes related to identifiers and to general battery properties .....	28
Table 3	— Overview of battery passport data attributes for symbols, labels and documentation of conformity.....	35
Table 4	— Battery passport data attributes related to the battery carbon footprint.....	39

<b>Table 5 — Mandatory and suggested supply chain due diligence information to be made available via the battery passport.....</b>	<b>44</b>
<b>Table 6 — Battery passport data attributes related to battery materials and composition .....</b>	<b>47</b>
<b>Table 7 — Circularity information — data attributes .....</b>	<b>50</b>
<b>Table 8 — Recycled and renewable content — data attributes .....</b>	<b>53</b>
<b>Table 9 — Role of end-users in waste prevention and collection — data attributes .....</b>	<b>56</b>
<b>Table 10 — Data attributes with regard to battery capacity, energy and voltage .....</b>	<b>61</b>
<b>Table 11 — Data attributes regarding power capability .....</b>	<b>67</b>
<b>Table 12 — Data attributes regarding round trip energy efficiency.....</b>	<b>71</b>
<b>Table 13 — Data attributes regarding internal resistance and electrochemical impedance .....</b>	<b>76</b>
<b>Table 14 — Data attributes regarding battery lifetime.....</b>	<b>79</b>
<b>Table 15 — Data attributes regarding temperature conditions.....</b>	<b>84</b>
<b>Table 16 — Data attributes regarding negative events.....</b>	<b>87</b>
<b>Table A.1 — Data attribute longlist.....</b>	<b>90</b>
<b>Table C.1 — Mandatory recycled content targets for battery materials in the EU Battery Regulation.....</b>	<b>96</b>
<b>Table D.1 — References for data attributes and their requirements to the EU Battery Regulation and other regulation.....</b>	<b>97</b>